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JUNE 20, 1931.

Vol. CXIV.

A
BRITISH
PRODUCT
MADE IN
ENGLAND



THE Dental Plate Fixing Powder

*Send us the Names and Addresses of your Dentist Customers
and we will send them samples and indicate that you can supply.*

Retail 1/- & 1/9 P.A.T.A. Wholesale 7/- & 13/- doz.

MEGGESON & Co., Ltd. LONDON, S.E. 16

ESTABLISHED OVER 130 YEARS.

TWO NOTABLE MAY & BAKER SPECIALITIES

TRADE
MARK

"GARDENAL" Brand Phenobarbital

A completely reliable non-narcotic hypnotic and sedative of unvarying therapeutic efficiency. Employed with effect in epilepsy, chorea, migraine, insomnia, etc.

TRADE
MARK

"PROPIDEX" Brand Ointment

A new and efficient means of applying local bacteriotherapy in the treatment of boils, carbuncles, abscesses, burns, ulcers and pyogenic conditions generally.

The general excellence of these products backed by extensive medical propaganda is steadily increasing the already large demand.
You should write for full particulars.

BATTERSEA, MAY & BAKER, Ltd. LONDON, S.W.11

On Friday, *June 26th*

there is another Pepsodent
Front Page in the
"Daily Mail"



A
P.A.T.A.
article
your profits
protected

YOU will sell more Pepsodent — you will increase your profit — by making a Pepsodent window display to link up with this big piece of advertising.

The Pepsodent advertising programme is always the largest tooth paste campaign running in the Press, and this "Daily Mail" front page is additional to the regular part of the scheme.

The maintenance of this heavy advertising pressure at all times — through Summer and Winter — through depression and boom — is the basis of the Pepsodent policy. It is reflected in the solid position of Pepsodent Tooth Paste on the market today.

By associating your shop with this advertising you will get your full share of Pepsodent sales — quick sales on which you make a liberal profit.

If you have not received the new Pepsodent Summer display send the coupon now.

Compare the profit — compare the advertising. It pays to push Pepsodent

SEND THIS COUPON

T 11

The Pepsodent Co. (Dept. 280), 8, India Street, London, E.C.3.

Send me, carriage paid, one of the new Pepsodent summer window displays.

Name _____

Address _____

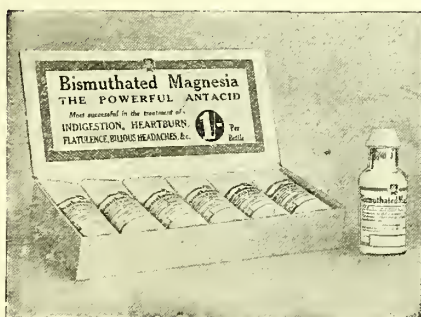
C. & D. 20/6/31

Sell the goods which bear YOUR NAME

THIS
TRADE
MARK



IS A
GUARANTEE
OF THE
FINEST QUALITY



Every Order to the value of 10/- for
Bismuthated Magnesia
is printed with your name and address.

Every chemist should have one indigestion remedy as his speciality. Why not Bismuthated Magnesia?

The formula is sound (contains over 15% of Bismuth Carbonate) and regular customers are ensured.

PRICES: Small, 6/6 Large, 11/- doz.
Tablets (Bottles of 50) 6/6 doz.

Orders for 3 dozen LANOLINE
CREAM are printed

.....'s
(Your name here)

LANOLINE CREAM

This makes an excellent own name proprietary.

Lanoline Cream is a useful cream for a variety of purposes—Wrinkles, Chapped Hands, Sunburn, Skinfood, Base for face powder, etc.

Let us send you free 10½d. sample.

2-OZ. - 6/-	Retail - 1/-
4-OZ. - 10/-	Retail - 1/9



ARTHUR H. COX & CO. LTD
Manufacturing Chemists
BRIGHTON ENGLAND



Sysol

WOOLLEY

On the list of
Disinfectants and
Antiseptics approved
by the Minister of
Agriculture and
Fisheries.



ANTISEPTIC & DISINFECTANT

Guaranteed to contain full 50% of Cresols.

Perfectly and easily miscible with water forming a solution of not unpleasant odour.

Of great Penetrating Power.

Of high Germicidal Value.

Free from Alkalies.

Packed in:—

4 oz.	8 oz.	16 oz.	32 oz.	$\frac{1}{2}$ gall.	1 gall.
6/-	10/-	17/-	27/6	51/-	84/-

Special terms for quantities.

JAMES WOOLLEY
SONS & Co. Ltd
VICTORIA BRIDGE, MANCHESTER

Your Summer Opportunity

COTY

FLOWER PERFUMES

Now is the time to concentrate your efforts on the popular Coty Flower Perfumes. You will find them the easiest selling products you have ever handled.

To help you introduce Coty Flower Perfumes to your customers, we are offering this attractive Counter Display Stand

FREE OF CHARGE

with all orders for

15 $\frac{1}{4}$ oz. Perfumes No. 099 at 3/9 value £2 16 3

4 $\frac{1}{2}$ oz. Perfumes No. 055 at 6/- value 1 4 0

Total 4 0 3

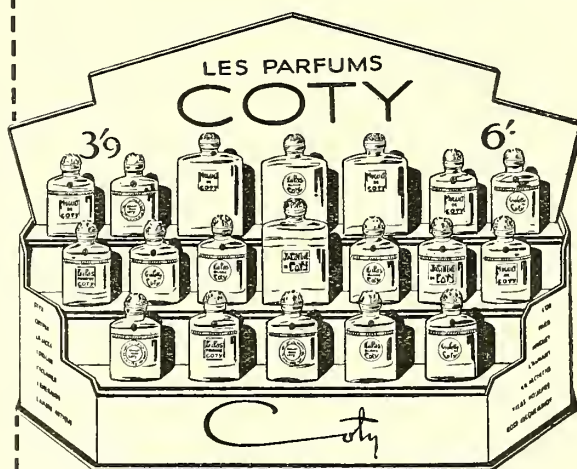
Less 35% disc. 1 8 1

Usual trade price 2 12 2

**SPECIAL PRICE
INCLUDING STAND**

50/-

NOTE:—Although this offer is made especially in connection with Flower Perfumes, you can make your own selection of any perfumes except Le Jasmin de Corse.

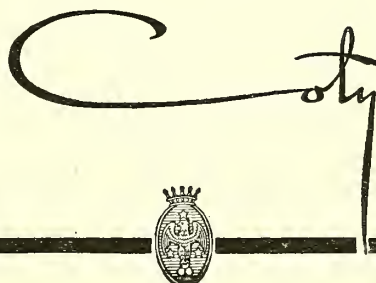


Take advantage of this generous offer at once. You will ensure a steady increase in your sales during the summer months.

COTY (England) LTD., Coty House,
3, Stratford Place, London. W.1.

Telephone :
Mayfair 7244-49

Telegrams :
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May and Baker's Guarantee

BISMUTH CARBONATE B.P.
(EXTRA LIGHT)
Contains less than

NITRATE (NO_3)	0.09 %
CHLORIDE (Cl)	0.01 %
CALCIUM (Ca)	NIL

DENSITY

1 lb. occupies a volume of
50 Fluid Ounces

for **Bismuth
Carbonate**

Better than B.P.

MB

MAY & BAKER, Limited
BATTERSEA



Manufacturing Chemists
LONDON, S.W.

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Sell also
KAYBRO
 the non-greasy
ANTI-STING
 at a popular price.
 Retail, 9d. per tube
 Wholesale, 6/- per
 box of twelve tubes

★ A Seal Concealed . . .

VIPER Flycatchers contain an internal seal which is your sure protection against both sticky fingers and loss through leakage and deterioration. **Viper Flycatchers** are always clean and always fresh.

Sensible wire hanger—removable for hooking over gas brackets, into shelf angles, and a host of other places.

Efficient drip-preventer—of ample size, this entirely obviates drip, even in the hottest weather.

Smart display outer—decorative on the counter and a reliable stimulant to sales.

From your Wholesaler or the Sole Makers :

KAY BROTHERS Ltd.
STOCKPORT

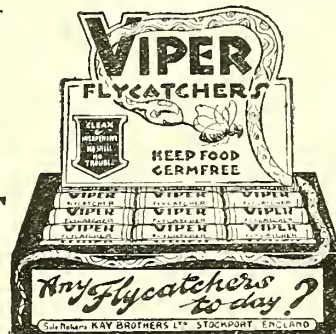
. . . Always order **VIPER** Sealed Flycatchers

3 widths

2-inch - 3-inch - 4-inch

—ALSO—

FLYSAC Pleated Tape Flycatcher
GORGON Spiral Coil Flycatcher with the diamond pin for suspension



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Everything
in
Photographics

PLEASE REMEMBER THAT
ALL YOUR
REQUIREMENTS
MAY BE OBTAINED
FROM

John Thompson
(WHOLESALE)
(DRUGGISTS 1921) **Ltd.**
27-35 Duke St., Liverpool

Telegrams - "Drugs, Liverpool."
Telephones - Royal 1434 (6 lines).

GLAXO LABORATORIES

A depot has been established at the pharmacy of

JOHN BELL & CROYDEN

50 Wigmore Street, W.1

where all products of the Glaxo Laboratories will be obtainable, DAY or NIGHT, SUNDAYS or HOLIDAYS

Bulk packages will be broken and discount allowed

PRODUCTS OF THE GLAXO LABORATORIES

"OSTELIN" LIQUID

Per bottle of 8 cc. .. 2/6

Bulk 20z. bottles .. 12/6

"OSTELIN" TABLETS

Per bottle of 45 tablets 2/6

Per bottle of 250 tablets 12/6

OSTOMALT

½ lb. jars .. 2/6 1 lb. jars 4/-

"OSTELIN" EMULSION

In 8oz. bottles .. 2/6

COLLOIDAL CALCIUM with "OSTELIN"

VITAMIN D

For subcutaneous injection.

1cc. ampoules, 6 in a box 5/-

10z. bottles. Per bottle 10/-

"OSTELIN" with PARATHYROID

TABLETS

100 Tablets .. 8/9

VIOZIN OINTMENT

In 2oz. tins. Per tin .. 2/6

OSNOL NASAL SPRAY

In phials .. 3/-

ADEXOLIN CAPSULES

In boxes of 25 .. 5/-

In boxes of 100 .. 15/-

ERBOLIN

In bottles of 25 .. 3/4

In bottles of 100 .. 10/-

In bottles of 500 45/-

In bottles of 1,000 .. 80/-

ANTIVIRUS

"Antivirin" Brand

Staphylococcus : Streptococcus :

Staphylococcus and

Streptococcus Mixed

5cc. ampoules, 6 in a box 5/-

30cc. (rubber-capped)

Per bottle 4/-

B. ACNES ANTIVIRUS OINTMENT

"Antivirin" Brand

In tubes .. 2/6

MALTINE PLAIN

Per bottle .. 2/9 and 5/-

MALTINE WITH COD-LIVER OIL

Per bottle .. 2/9 and 5/-

MALTINE with PEPSIN AND PANCREATIN

Per bottle .. 2/9 and 5/-

MALTINE with CASCARA SAGRADA

Per bottle .. 2/9 and 5/-

MALTINE with CREOSOTE

Per bottle 2/9 and 5/-

MALTO-YERBINE

Per bottle .. 3/-

SUNSHINE GLAXO

Per tin .. 1/6 and 3/6

STANDARD GLAXO

Per tin .. 3/6

GLAXO (HALF-CREAM)

Per tin .. 2/6

GLAXO MALTED FOOD

Per tin .. 1/3 and 2/4

GLAX-OVO

Per tin 1/6, 3/3, 6/- and 16/3

OSTERMILK

Per tin .. 2/-



CAN WE SEND THEM TO YOU?

All England will be clamouring for LIVE yeast (Barmsole). No expense has been spared in advising the medical profession that LIVE yeast can now be kept alive in capsule form for the first time in the history of medicine. No expense has been spared in advising the public that they can now buy LIVE yeast in capsules instead of "dead" yeast in tablets. This full page in the *Daily Mail* (July 3) is the spearhead of our £30,000 national publicity campaign which will convert the public from quack remedies back to Nature's cure, "LIVE" yeast. Hold a stock—however small. Our advertising will do the selling. (Use the bonus order form below.)

BONUS ORDER FORM

To Messrs. Roberts, Cole & Co.
37/38 Margaret St., London, W.1

COST £2 - 10 - 0 | PROFITS £1 - 3 - 6

DEAR SIRs,

Please send carriage paid

3 doz.	1/3	size Barmsole Brand Capsules	@ 12/- doz.
1/2 "	3/-	" " "	@ 28/- "
with 6 only	1/3	" " "	FREE
1 "	3/-	" " "	FREE

and full range of good display material. I will give a 14-day window display. If required to be invoiced through wholesaler please state name.

Seasonable Lines of Interest
— to all Pharmacists —

***Armour's* JUNKET TABLETS**

Packed in display cartons of 12 tubes
16 tablets to a tube. Retail price **7½d.** tube

***Armour's* JUNKET POWDER**

Packed in display cartons of 12 tubes
24 measures to a tube. Retail price **7½d.** tube

***Armour's* FLUID ESSENCE OF RENNET**

Packed in two sizes _____
Reputed ¼-pints - - - Retail price **7½d.**
Reputed ½-pints - - - Retail price **11½d.**

Make Sure Your Stocks are in order

Information and samples concerning any of the above
products will be forwarded to you upon request.

LABORATORY DEPARTMENT
ARMOUR AND COMPANY
LIMITED

ARMOUR HOUSE, St. MARTIN'S-LE-GRAND,
LONDON, E.C.1.

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FALL IN!!!

and follow the FLIT Soldier to- INCREASED SALES AND BIGGER PROFITS

Flit sales went ahead last year to create a new record, even though weather conditions were adverse to fly breeding. Flit sales increase year after year independently of weather, because more people learn that Flit kills all insects quicker.

Step in line with this growing demand. Stock Flit for bigger profits.

FLIT SELLS

STEMCO LTD., 128, Albert St., Camden Town, N.W.1. Telephone: Gulliver 5474. Telegrams: Nufinjol, Norwest, London.



Maw's Page



Meritor Months

June marks the beginning of the holiday period. It is now that both men and women begin to think about looking and feeling their best during the two or three weeks which are, to most of us, the most important of the whole year.

Every woman wants a hair brush which she is not ashamed to place on the dressing table at a hotel or boarding-house, which is a joy to use and which will give her reason to be proud of the appearance of her hair.

The man who is well groomed in ordinary circumstances wants to be better groomed during his holidays. He considers the appearance and efficiency of his shaving brush.

Both men and women, of course, give equal attention to the appearance of their teeth. A new tooth brush is an absolute necessity to the success of any summer holiday.

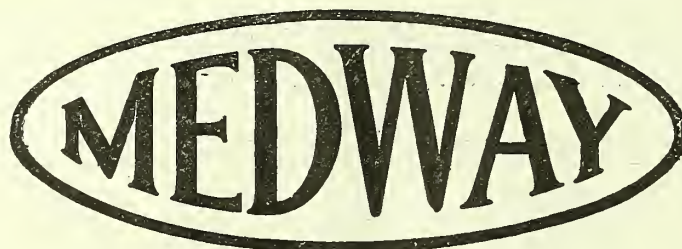
The holiday season, therefore, means "Meritor" business for the pharmacist.

Sell every one of your customers who is taking a holiday a "Meritor" brush. Sell "Meritor" Hair Brushes. Sell "Meritor" Shaving Brushes. Sell "Meritor" Tooth Brushes. Every "Meritor" toilet brush is guaranteed. Every "Meritor" sale brings a substantial profit and the assurance of repeat business.

Let this holiday season be the foundation of an unshakeable, ever increasing toilet-brush business. Remember! 'Meritor' toilet brushes cannot be purchased outside the pharmacy.

S. Maw, Son & Sons, Ltd.,
Aldersgate St., London,
and Barnet.





CORRUGATED PAPERS

(in rolls up to 78 inches wide)

PIECES, BOARDS & BOXES

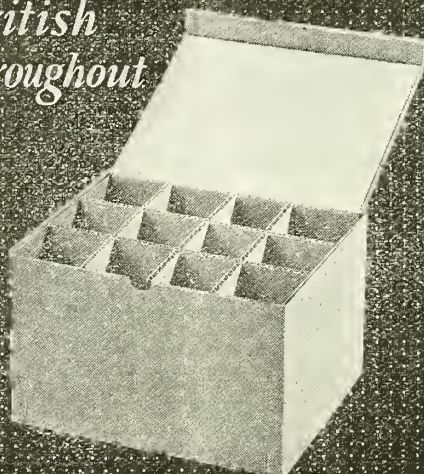
*All corrugated productions
are manufactured from our own British made
strawpaper, produced from British
raw materials only.*

The Medway Corrugated Paper Co. Ltd.

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New Bridge St.
E.C.4.

Telephone : Central 8482
Telegrams : "Corrugated
Lud, London."

*British
Throughout*



Provincial:
Tovil,
Maidstone,
Kent.

Telephone : Maidstone 4163
Telegrams : "Corrugated
Tovil."



THE "ELITE" SERIES of superb toilet preparations

Beautifully presented, these preparations make a public appeal apart from price. To appreciate fully what we claim, ask our representative to show you the series. As the name claims, they are truly a credit to first-class Pharmacies.

EVANS SONS, LESCHER & WEBB LTD.

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DUBLIN

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SELO

GASLIGHT

◆
obviates waste

◆
saves you money

◆
gives better results

◆
brings more customers

◆
means increased business

◆
MADE SPECIALLY FOR D.&P. WORK

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CORKS

TO
BUY
NOW

SPECIAL
OFFER

6^{d.}

PER
GROSS

8 oz.
SPECIAL

Per gross - - 6¹/₂d.
50 gross lots - 6¹/₄d.
100 gross lots - 6d.

4 oz.
SPECIAL

Per gross - - 6d.
50 gross lots - 5³/₄d.
100 gross lots - 5¹/₂d.



A huge special purchase
but at these prices will
quickly be sold.

	6 gr.	12 gr.	24 gr.
N.S., for 6 oz. and 8 oz., cheap for Insurance Scripts per gross	8 ¹ / ₂ d.	8 ¹ / ₂ d.	8d.
Madrid, for 1 dr., 2 dr., ¹ / ₂ oz., and 1 oz. vials ..	10 ¹ / ₂ d.	10 ¹ / ₂ d.	10d.
Do. XX, same size as Madrid, but superior quality	1/-	11 ¹ / ₂ d.	11 ¹ / ₂ d.
Faro, for 2 oz. and 3 oz. bottles	11d.	10 ¹ / ₂ d.	10 ¹ / ₂ d.
Do. XX, same size as Faro, but superior quality	1/3	1/2 ³ / ₄	1/2 ¹ / ₂
Long Velvet Vials, for 3 and 4 oz. bottles ..	1/9	—	—
Do. Do. for 6 and 8 oz. bottles ..	2/-	—	—
Braga, long tapering, for 2 oz. and 3 oz. bottles	1/-	11 ¹ / ₂ d.	11 ¹ / ₂ d.
Do. XX, same size as Braga, but superior quality	1/4	1/3 ³ / ₄	1/3 ¹ / ₂
Lisbon, assorted for 6 oz. and 8 oz. bottles ..	1/-	11 ¹ / ₂ d.	11 ¹ / ₂ d.
Do. XX, superior quality	1/4	1/3 ³ / ₄	1/3 ¹ / ₂
Lisbon, 6 oz. only	11d.	10 ¹ / ₂ d.	10 ¹ / ₂ d.
Do. XX, superior quality	1/4	1/3 ³ / ₄	1/3 ¹ / ₂
Lisbon, 8 oz. only	1/1	1/0 ³ / ₄	1/0 ¹ / ₂
Do. XX, superior quality	1/4	1/3 ³ / ₄	1/3 ¹ / ₂
Cordova, for 8 oz. and 10 oz. bottles	1/4	1/3 ³ / ₄	1/3 ¹ / ₂
Do. XX, same size as Cordova, but superior quality	1/8	1/7 ³ / ₄	1/7 ¹ / ₂
Cadiz, for 10 oz., 12 oz., 16 oz. bottles ..	1/4	1/3 ³ / ₄	1/3 ¹ / ₂
Do. XX, same size as Cadiz, but superior quality	1/9	1/8 ³ / ₄	1/8 ¹ / ₂
Special long tapered, for 10 oz., 12 oz. bottles ..	2/-	1/11 ¹ / ₂	1/11 ¹ / ₂
Lugo, for 20 oz. and 30 oz. bottles	2/-	1/11 ³ / ₄	1/11 ¹ / ₂
Ginger Beers, XX, quart size	1/-	11 ¹ / ₂ d.	11 ¹ / ₂ d.
Do. XXX, pint size	1/-	11 ¹ / ₂ d.	11 ¹ / ₂ d.
Do. XXX, quart size	1/3	1/2 ³ / ₄	1/2 ¹ / ₂
Wines, pints	4/-	3/11 ³ / ₄	3/11 ¹ / ₂
Do. quarts	4/6	4/5 ¹ / ₂	4/5 ¹ / ₂
Emulsions, for W.M. Emulsion	3/3	3/2 ³ / ₄	3/2 ¹ / ₂
Jars, for 1 gallon jars	3/3	3/2 ³ / ₄	3/2 ¹ / ₂
Do. for 2 gallon jars	3/6	3/5 ¹ / ₂	3/5 ¹ / ₂
Winchester Quarts	—	—	2/6

CORK SHIVES cut to suit all requirements

**AYRTON, SAUNDERS
& CO., LTD.,**
EVERYTHING PHARMACEUTICAL
LIVERPOOL

Solid Essential Oils— up to 73%

These products are the finest "anti-gnatbites" obtainable. They are harmless to the skin and allow a sufficient quantity of perfume to be applied to effect complete freedom from gnats and other biting flies and insects.

They readily emulsify in warm water and form a cheap and most satisfactory solid bath perfume.

Emulsifiable Concentrated Perfumes

For the immediate production of perfumed spraying liquids; the addition of one fluid ounce of any of these products to one gallon of water will immediately give a permanent emulsion ready for spraying. Suitable for cinemas, halls, hospitals, smoking rooms, hotels, etc., and also as a highly concentrated bath perfume.

Emulsifiable Formalin Perfumes

Where a Formalin spray is required 4-5 fluid ounces of any of these products per gallon of water yields immediately a permanent emulsion ready for spraying containing the correct proportion of Formaldehyde for complete sterilisation, and at the same time imparting a delightful odour. Suitable for general disinfection and of universal application.

These products are all stable bodies and ANY ESSENTIAL OIL or PERFUME COMPOSITION can be made up in any one of these three forms.

For samples, prices and further information apply to:

ESSENCES & SYNTHETICS LIMITED

(Wm. C. SLATER, Managing Director)

4 CARLISLE AVENUE, LONDON, E.C.3

Essynthet, Ald, London

Royal 0290

Two of the Best!



.. for
steady
sales.

TRADE TERMS

12/- doz.
Retail at 18/-
20/- doz.
Retail at 30/-

SHOWCARDS & CUTOUTS

A supply of attractive Showcards and Cut-outs for Window Display sent post free.

ANZORA PERFUMERY
CO. LTD.,

London, N.W.6.

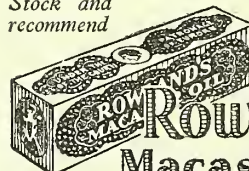
Men who use Anzora never change—they know it to be the finest hair fixative. That is why Anzora Cream and Anzora Viola are in constant demand. Never "run out" of Anzora—you'll lose sales if you do! All reputable wholesalers stock Anzora, but if you have any difficulty write direct.

ANZORA
MASTERS THE HAIR

Selling Suggestions

Rowland's Macassar Oil nourishes and revitalises the roots of greying, thinning hair and soon restores it to youthful colour and growth.

Stock and
recommend

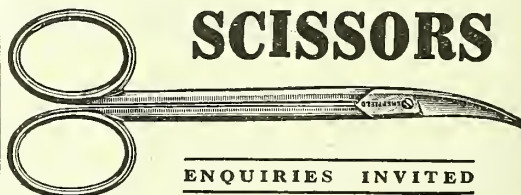


J. H. & Co.

Of all Wholesalers
to retail at 3/6,
7/- and 10/6.

**Rowland's
Macassar Oil**

A. ROWLAND & SONS, Ltd., 22 Laystall St.,
Rosebery Avenue, London, E.C.1



SCISSORS

ENQUIRIES INVITED

GILL, HERBERT & CO., Ltd.
CUTLERY MANUFACTURERS,
Wheeldon Street, SHEFFIELD

All for  Beauty



*Beauty Preparations that make life-long
friends—of retailers and customers alike*

Wherever they go, the Harriet Hubbard Ayer preparations make happy and satisfied friends. Long famous in America, they have taken less than three short years to make a name for themselves among discriminating British women—to be stocked by every important retailer throughout the country.

This astonishing success is undoubtedly due to two things. First, the fact that each preparation fulfils more than one function—the favourite, Luxuria, for instance, combining the virtues of a cleanser, bleacher and skin food. Secondly—the extensive and judicious advertising which appears constantly in all the fashionable periodicals, and in the national press.

If you would share in the rapidly increasing demand, now is the moment to take up the Harriet Hubbard Ayer Preparations.

Write to Harriet Hubbard Ayer Ltd., 130 Regent Street, W.1., for a full catalogue and terms. Or, better still, call and see our spacious new showrooms, and receive all particulars personally.

The retail prices for the famous Luxuria Cream are 2/3, 4/6, 8/6, 11/9.

HARRIET HUBBARD AYER
LTD

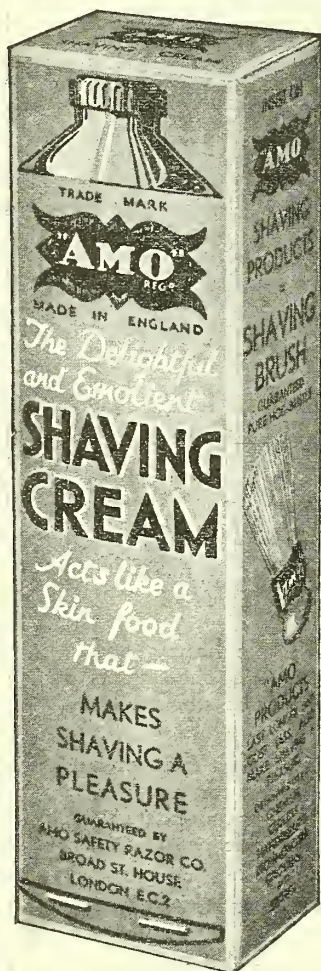
Beauty Preparations

NEW YORK

LONDON

PARIS

AMO GIANT TUBE SHAVING CREAM



**BRITISH
PRODUCT**

A DELIGHTFUL
& EMOLLIENT
SHAVING
CREAM MADE
OF SUPERIOR
INGREDIENTS
CONTAINING
PROPERTIES
FOR THE
PROTECTION
OF THE SKIN

CONTENTS
4 OZS. NETT

RETAILS

1/-

SIZE $7\frac{1}{4} \times 2 \times 1\frac{1}{2}$
CELLOPHANE WRAPPED
PACKED 1 DOZEN
— IN —
DISPLAY CARTON

APPLY FOR
TERMS OR
SEND 9d.
FOR SAMPLE
POST PAID

AMO SAFETY RAZOR BLADE CO. LTD.
BROAD STREET HOUSE
LONDON, E.C.2

Calvert's (CARBOLIC) Tooth Powder

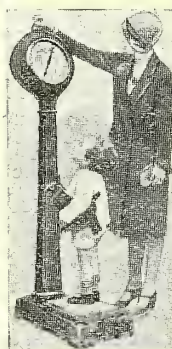
NEW DISPLAY TERMS

on parcels of one gross 6d. tins or equivalent value
(Carriage paid to any railway station in Great Britain)

F. C. Calvert & Co. Ltd., have pleasure in announcing the offer of a special display discount of 5% on orders not less than £2 14s. gross value, together with a further discount of $2\frac{1}{2}\%$ for cash with order, or within 28 days from date of invoice on approved accounts.

This offer refers only to goods listed on pages 1 to 14 in their price list and does not apply to orders £4 gross value and upwards on which higher discounts are obtainable.

F. C. Calvert & Co. Ltd.
Manchester.



Let the "GEM"
make money for you

Write for particulars and
name of local agent to the
manufacturers:—

THE GEM
AUTOMATIC WEIGHING
MACHINE COMPANY
LIMITED
46 NEW CITY ROAD
GLASGOW C.4

G. B. KENT & SONS, LTD.

Are known the World over as
the Largest Manufacturers of

**BEST
BRITISH
BRUSHES**

Please write for full Particulars to:—
75 FARRINGDON ROAD, E.C.1.

only 11 more days!

**Order
for your
HALEX
BONUSES
NOW**

A (HALEX BONUS TERMS) SEND IN THIS ORDER FORM TO-DAY FOR QUAN- TITIES OF 3, 4 AND 5 DOZEN TOOTHBRUSHES

All orders under the Halex Ordinary Bonus Plan should be sent in on this special order form. Extra copies are obtainable from your usual wholesaler, or from the British Xylonite Co., Ltd., Hale End, London, E.4.

To your usual wholesaler.....dozen Halex toothbrushes as listed below, together with the free display material and one FREE brush in every half-dozen toothbrushes ordered, in consideration of my exhibiting the Halex Window Display for a fortnight commencing not later than June 30th.

Please supply me/us with.....
Halex No. 1.....dozen @ 6/- per doz.
Halex No. 2.....dozen @ 7/6 per doz.
Halex No. 3.....dozen @ 9/- per doz.
Halex No. 4.....dozen @ 11/- per doz.
Halex No. 5.....dozen @ 13/- per doz.
Halex No. 6.....dozen @ 15/- per doz.
Halex No. 7.....dozen @ 13/- per doz.

Each brush in a carton. Packed in boxes of half-dozen hard or half-dozen medium, carriage paid.

NOTE.—Only the standard assortment of colours can be sent.
The Halex showcase for displaying your brushes, if required, is included FREE in addition to the Halex Window Display, with first orders for not less than 4 dozen Halex Toothbrushes. Please say whether showcase is wanted. YES..... NO.....

NAME.....

T 7

ADDRESS.....

B (Halex EXTRA Bonus Terms) SEND IN THIS ORDER FORM TO-DAY FOR QUAN- TITIES OF 6 DOZEN TOOTHBRUSHES AND UPWARDS

All orders under the Halex Extra-Ordinary Rising Bonus Plan should be sent in on this special order form. Extra copies are obtainable from your usual wholesaler, or from the British Xylonite Co., Ltd., Hale End, London, E.4.

To your usual wholesaler.....dozen Halex Toothbrushes as listed below, together with the FREE Display Material, the FREE brush in every half-dozen toothbrushes ordered, in consideration of my PLUS the rising bonus of THREE Halex No. 7's in every six dozen ordered, not later than June 30th.

Please supply me/us with.....
Halex No. 1.....dozen @ 6/- per doz.
Halex No. 2.....dozen @ 7/6 per doz.
Halex No. 3.....dozen @ 9/- per doz.
Halex No. 4.....dozen @ 11/- per doz.
Halex No. 5.....dozen @ 13/- per doz.
Halex No. 6.....dozen @ 15/- per doz.
Halex No. 7.....dozen @ 13/- per doz.

Each brush in a carton. Packed in boxes of half-dozen hard or half-dozen medium, carriage paid.

NOTE.—Only the standard assortment of colours can be sent.
The Halex showcase for displaying your brushes, if required, is included FREE in addition to the Halex Window Display, with first orders for not less than 4 dozen Halex Toothbrushes. Please say whether showcase is wanted. YES..... NO.....

NAME.....

T 7

ADDRESS.....

Is your Bonus order in?

Are your free profits

assured? Remember!

The Halex Bonus

offer closes on June

30th. Order now

and you'll be in

time.

HALEX TOOTHBRUSHES

We are seven!

TOILET PREPARATIONS

UNEQUALLED FOR VALUE IN BRILLIANTINES,
DRY SHAMPOOS, LOTIONS, FACE CREAMS, Etc.

JULES FRÈRES LIME CREAM AND GLYCERINE

THE BEST LINE EVER OFFERED TO THE TRADE

CAMEO SERIES



EQUALLY SATISFACTORY
IN THE HOTTEST OR
COLDEST CLIMATE

PRICES:

3 oz. Bottles	-	-	3/9	per doz.
4 oz. „	-	-	4/3	
6 oz. „	-	-	5/6	„
8 oz. „	-	-	6/6	„

SEND FOR
ILLUSTRATED CATALOGUE

ECINOS SERIES



JULES FRÈRES LTD.

(Sole Agents: P. H. Galloway, Ltd.)

WALWORTH ROAD, LONDON, S.E.17

WHITE'S MANUFACTURING Co. LTD.
THANK THE PHARMACISTS OF THE COUNTRY
FOR THEIR ASSURANCES OF CONTINUED
SUPPORT RECEIVED FROM ALL PARTS
OF THE COUNTRY DURING THE LAST WEEK

White's Electric Combs are advertised so largely that Pharmacists have made *good profits* on them for several years past.

White's Electric Combs have a double-strength battery and thus give twice the electricity.

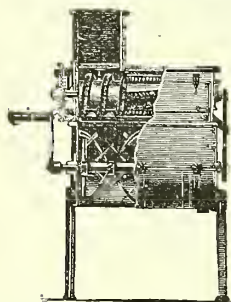
White's Electric Comb advertising will *continuously support the Pharmacist* as in the past.

Send for new show material

Prices :	" Handbag "	3/6	(With double-size battery)
	" Standard "	10/-	(With double-size battery)
	" Jade "	15/-	(With double-size battery)
	" De Luxe "	20/-	(With double-size battery)

WHITE'S MANUFACTURING CO. LTD.
AUDREY HOUSE, ELY PLACE
LONDON, E.C.1

perfect blending



Gardner's "Rapid" Sifter and Mixer gives a perfect blend. The special Internal Agitator ensures accurate sifting and mixing of materials, irrespective of the diversity of their proportions; if necessary, 3oz. can be perfectly blended with hundredweights.

GARDNERS Patent "RAPID" SIFTER & MIXER

Write us for list of Ball Mills, Disintegrators, Millstones and Mills, Drum Sieves, Drying Machinery, etc.

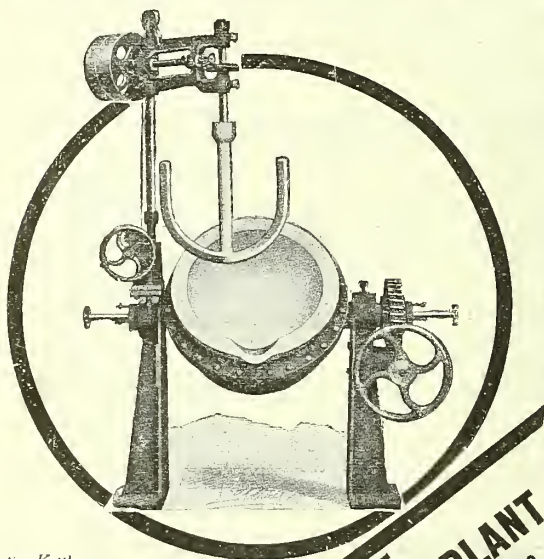
Wm. GARDNER & Sons (Gloucester) Ltd.
Bristol Road - - - Gloucester

Tel.: Gloucester 2288 (2 lines).

'Grams: Gardner, Gloucester

LONDON - 19 Gray's Inn Chmbrs., 20 High Holborn, W.C.1

Telephone: Chancery 7347



Reaction Kettles,
Distilling Apparatus,
Evaporators,
Jacketed Kettles,
Jacketed Tilting Kettles,
Enamelled Tanks,
Enamelled Containers.

**ACID PROOF
ENAMELLED CHEMICAL PLANT**
DANTO-ROGEAT & CO., LYONS, France
45 Great Marlborough
Street, London, W.1
Write for particulars to
H. SLOOG,
Telephone: Regent 3480
Telegrams: Onaloguech, London.

SPEEDY & RELIABLE!
Avoid waste with—

The "LAUDER" BOTTLE FILLING MACHINE

(For liquids or semi-liquids)

Made in capacities of 40, 60,
80, & 100 fl. oz.

Prices with one detachable nozzle
(either 1", 3/8", 1/2", 5/8", or 3/4")

Heavy Charcoal Tinplate - 32/6

Tinned Copper - - - - 42/6

Stainless Steel - - - - 46/-

Nett: Carriage Paid: F.O.B. 5% extra.

Extra Nozzles 1/6 each.

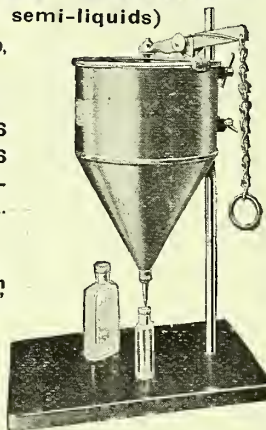
Also made in larger sizes and with
or without "Hot-water Jackets."

TRIAL ORDER SOLICITED.

Sole Manufacturer:

L. T. LAUDER

7 EXMOUTH ST., LEEDS



A "Labour Saving Device!"

ZULO CARBOY HAMPER



GLASS CARBOYS
DEMIJOHNS
WINCHESTERS
CARBOY TILTERS

R. & H. LEIGH & SONS LTD.
--- BOLTON ---



Hawker's

PLAIN TINS

from 2 ozs. to 28 lbs.

THERE'S
SOME-BODY
IN THIS TIN
PHONE:
NORTH 0488

**FOR PACKING DRUGS
AND POWDERS**

120 Pentonville Road, LONDON, N.1



**THIS IS
ONE OF THE ENTRIES
IN THE**

SWAN DOWN WINDOW DISPLAY COMPETITION

**Very simple
yet very effective.**

HAVE YOU ENTERED?

If not, send immediately for full particulars. The closing date has been advanced, therefore all photographs should be sent in during the next three weeks. Names of prize-winners will be published in this journal.

HENRY TETLOW COMPANY
84 Leadenhall Street, London, E.C.3

**WIN A PRIZE and also
INCREASE YOUR SALES**

This £1000 challenge
IS ENCLOSED IN
every box!

W. J. Rendell, Ltd., will pay £1,000 to Charity if any person or persons can prove that each box of Pessaries contains one which is ineffective. There is a false report spread by certain persons who endeavour to mislead the public into believing that every box contains a useless pessary, in some cases even supporting their statements by declaring it is made compulsory by law.
Rubinstein, Nash & Co., Solicitors, Gray's Inn, London, W.C., are instructed to take proceedings against any person found to be circulating this false report.
**EVERY RENDELL PESSARY IS, AND ALWAYS HAS BEEN
ABSOLUTELY EFFICACIOUS.**

W. J. Rendell's "Wife's Friend" Soluble Pessaries.

The reliability of Rendell's Pessaries is fully set out in The Wife's Handbook. Be sure and look for autograph Trade Mark on the labels to prevent disappointment. **W. J. RENDELL, London**

Trade Mark

All trading rights
in reserve

W. J. Rendell

What it means

When a chemist sells Rendell's Pessaries he knows he is offering an article which is backed by a reputation of 50 years. Made under the supervision of qualified chemists, each one can be absolutely relied upon and is fully efficacious. Thus do Rendell's Pessaries justify the confidence of the trade and users alike.

W. J. RENDELL, LTD.
HARDWICK HOUSE
161/165 Rosebery Av.
LONDON, E.C.1

**RENDLELL'S for
RELIABILITY**

REGISTERED



TRADE MARK

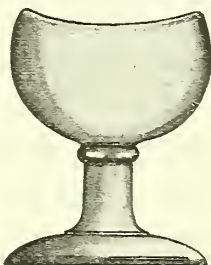
THE EYE

is an important Organ—

When it is being treated only the best Appliances should be used. Supply your Customers, therefore, with one of our

EYE BATHS

and they will have a reliable and safe appliance of best English Make



No. 51. Super Quality with Hand-finished bowl



No. 52. With flashed brim



No. 53. With flashed brim

MADE IN CLEAR GLASS, ACTINIC GREEN, AND DARK BLUE. EACH EYEBATH BEARS OUR TRADE MARK

Packed in cardboard boxes holding six each

Sold by the leading wholesale houses

WOOD BROS. GLASS Co.
LIMITED

(ESTABLISHED 1828)

BARNSELY - - ENGLAND

"Adaptocaps"

will give
your bottles
Distinction

These Dry Bottle Caps are made in all sizes and colours, clear and opaque. They are Self Sealing, of unrivalled quality and BRITISH MANUFACTURE. Special low rates for large contracts. Let us quote you.

The London Capsule Co

EMPIRE WORKS, MITCHAM RD., CROYDON
Telephone : Thornton Heath 3014

Corks & Stoppers

All progressive business firms are keen buyers. Money saved in buying is extra capital. Nobody to day can afford to buy other than in the best market.

Mundel

Cork Products Ltd.

12/18 Abbey street
TOWER BRIDGE ROAD London S.E.1
Telegr: Mundelcomp Berm London
Telephone: Wap 2685

NURSE HARVEY'S MIXTURE

A safe, simple and reliable remedy for Children's Ailments is advertised so extensively in the daily and weekly Press as to bring mothers to the retailer without effort on his part.

The selling has been done before the mother reaches the chemist, and, having supplied her, it is only common sense to claim she will buy other family necessaries from him. Moreover, the continuous demand for it produces a quick turnover.

For Direct Terms apply to—

OSCAR SCRUTON & CO., YORK

Make Your Printed Matter More Effective

You would hardly send a down-at-heels representative to do business for you, but do you take equal care that your printed matter truly reflects the character of your business and your products? First impressions make all the difference. Ask us to show you what really good printing means.

Prices Right— Quality Right Delivery Right!

Labels, Counter Bills, Cartons, Showcards, Folders, Booklets, Envelopes, in fact any of the thousand and one requirements of the Drug Trade . . . printed at keenly competitive prices . . . deliveries dead on time . . . and all of excellent quality.

Get the advantage of a modern printing service with original ideas and secure 100 per cent. efficiency so far as your printed matter is concerned.

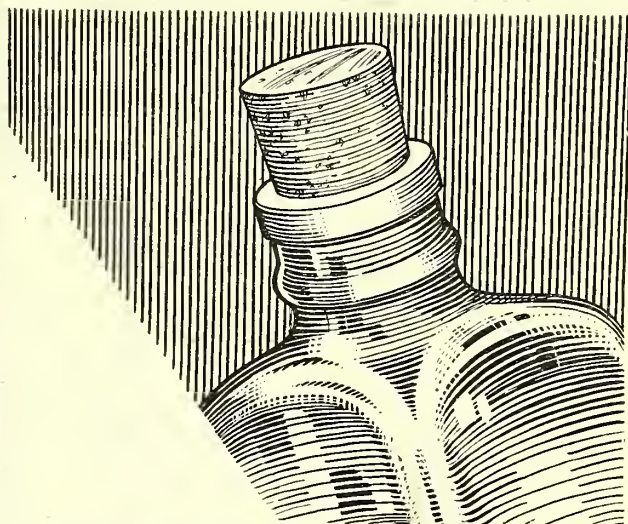
If you are interested in a service of this kind, send us your next enquiry and ask us for samples.

ALF HARRISON & SONS LTD.

Chemists' & Advertising Printers
Burley Road : LEEDS

London Office:

Sentinel House, Southampton Row, W.C.1
Telephone : Museum 8340. Also at Dublin and Belfast



CONSISTENTLY GRADED CORKS _____ MEANS ARMSTRONG

The care taken in the manufacture, grading and final inspection of Armstrong's Corks guarantees consistency throughout the consignment and through the years.

Made from the best cork wood in the world, and not passed to you until they have been individually inspected by experts.

That is why you should specify ARMSTRONG next time you order a supply of corks.

Carefully graded and obtainable in the following :

Gold Leaf Brand
Silver Leaf Brand
Blue Leaf Brand
Green Leaf Brand
and N.H.I. Brand

Can be obtained through your usual wholesaler or direct from :

**ARMSTRONG
CORK CO., LTD.**

Aldwych House,
ALDWYCH, LONDON, W.C.2

Telephone : Holborn 7503 (3 lines).
Telegrams : Armcorko, Strand, London.

**LIVERPOOL : 10 Preston St.
GLASGOW : 54 Gordon St., C.1.**

WHY WORRY

about the "Two for the
price of One" Sales
Bogey

?

WE
CAN HELP YOU
meet competition with a
range of special lines selling
from 6d. to 1/9, enabling you
to sell two for the price of
one and leaving you
33 $\frac{1}{3}$ % Profit

All good Value even at full prices

One Chemist only supplied
in each district

LET US SEND YOU PARTICULARS

M^cCLURE, YOUNG & CO. LTD

Manufacturing Chemists ECLIPSE WORKS

GLENTHAM ROAD · BARNES · S.W.13

Make your window bring INSTANT SALES



WITH their new Bulldog showcard, "A fit Protector," Bob Martin's have again produced an irresistible sales argument to dog owners. This magnificent reproduction of an Arthur Wardle painting combines the artist's skill with a direct forceful message, typically British, and with an immediate appeal.

Three out of four people who pass your pharmacy are dog-owners who know and use Bob Martin's preparations. To display this showcard is to remind them that they need go no further for their supplies.

Increased Press advertising has educated dog owners to the regular buying of Bob Martin preparations. The Display Material, of which the new showcard is the finest example so far produced, is vitally linked with Press announcements, and provides the ultimate argument for immediate buying.

Turn your window into valuable selling space by displaying this new sales help, and take your share of the increased profits which record sales of Bob Martin preparations will bring.

BOB MARTIN LIMITED
Dog Food & Medicine Manufacturers
SOUTHPORT ENG.



The DISPLAY **£1** PARCEL

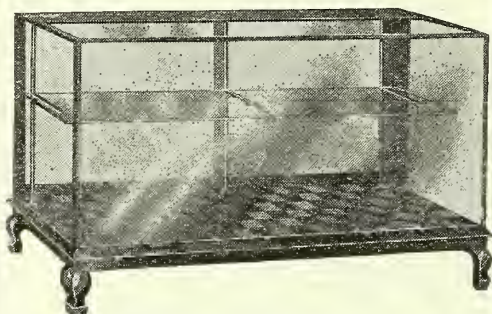
is particularly suitable for those who have not yet taken up a complete range of Bob Martin preparations. The retail value is **£1 9s.** and contents are:—

2 doz. 6d. Bob Martin's Tasteless Condition Powders:	s. d.
1/2 doz. Small Strength ..	1 10 1/2
1 " Medium Strength ..	3 9
1/2 " Large Strength ..	1 10 1/2
	7 6
1/2 doz. 6d. Distemper Powders ..	1 10 1/2
1/4 " 6d. Worm Powders ..	1 1 1/2
1/4 " 6d. Worm Tablets ..	1 1 1/2
1/4 " 1/- '92 Ointment ..	2 3
1/4 " 6d. Cleansfur ..	1 1 1/2
1/4 " 6d. Antiseptic Dog Soap ..	1 1 1/2
1/4 " 1/8 Martin Milk ..	3 10 1/2
	1 0 0

Carriage Paid in the United Kingdom.

A good supply of display material accompanies this parcel, including 1 dozen copies of **BOB MARTIN** on **DOGS** packed in a display container.

X J. C. KING'S "SUPER" SHOWCASE X



Ref. No. H.2109. This magnificent Showcase can be supplied with either a solid oak or mahogany frame. First quality new 3-in. drawn plate glass front, top and sides, with two clear glass sliding doors at back on roller bearings. Interior fitted with brown bronze standard bar and adjustable brackets, and one row of plate glass shelves 12-in. wide x 1-in. thick polished edges. The bottom of the Showcase fitted with parquet floor. Handsome carved legs and easy running gliders. Overall Dimensions:—

6 feet long x 3 feet high x 2 feet back to front.

£10 INSURED FREE IN TRANSIT

Send for Full List of Fittings, No. 1013, post free.

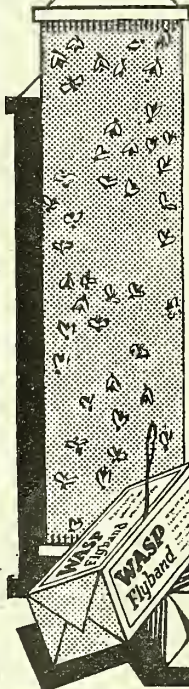
J. C. KING, LTD.

SHOPFITTING SPECIALISTS.

42-50 GOSWELL RD., LONDON, E.C.1

Phones: CLERKENWELL 2316 (6 lines).

WASP makes profits fly high



Wasp Flyband means satisfied customers all the time—and brings continual good profits for you. Wasp is the cleanest, quickest and best fly-catcher. Order Wasp Flyband now—remember any left-over stock keeps well from year to year.

WASP Flyband

Manufactured by—
F. W. HAMPSHIRE & CO.
(1927) LTD.
SUNNYDALE WORKS, DERBY

BOXES TO MEET ALL REQUIREMENTS

for the Chemist, Druggist and Sundriesman

No order too small. No order too large. Send your Sizes or Samples and we will quote by return. We KNOW how to meet your wishes, and will satisfy you in every way.

J. DAVIDSON, 98 SHEPHERDESS WALK, CITY RD., LONDON, N.1

Telephone: Clerkenwell 6878

CARTONS

FOR NEW AND PROFITABLE IDEAS READ SALES COUNTERCRAFT

By W. C. CARTER, M.P.S. A new book for the retailer and retail salesman, providing new, tested and successful methods. Brimful of hints—a book you'll value and use. 220pp. 7/6 net

PITMAN'S, PARKER ST., KINGSWAY, W.C.2

PHOTOGRAPHIC SEASON

There will be good D. & P. business this year. See you get your share. Our attractive printing will help you. So will our Free Block Service that places over 100 illustrations, etc., at your disposal.

ELLAMS & CO., Pharmaceutical Printers,
33 Hanover Street, Liverpool

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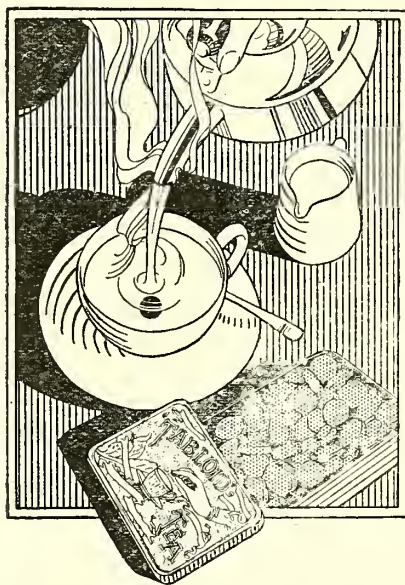
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English and Welsh News

Inquests

At Barry, on June 15, an inquest on the body of Augusta G. Hutchings, aged fifty-three, resulted in a verdict that "Death was due to pneumonia, which was indirectly caused by having taken an overdose of patent medicine containing morphia." The name of the medicine was not given for publication, but evidence showed that it was taken in error for an equivalent quantity of medicine prescribed by a doctor, and that the patient "recovered from the effects" by the next day.

The East Ham coroner held an inquest, on June 11, on the body of Edward S. Vaughan, a clerk, who died in hospital. It was stated in evidence that a local anæsthetic of novocain was to have been given in order that an examination might be made. Cocaine was given instead. The patient was put back to bed, where he developed fits and died. Dr. H. Silverstein admitted having made the mistake, and said that he wrote cocaine on the patient's bed-board in error. The coroner recorded a verdict of "Death from an accidental overdose of cocaine given by mistake for novocain."

Birmingham

Midland chemists are delighted with the success of Mr. J. W. Atkinson in being placed third in the recent Pharmaceutical Council election.

Shirley's new social club owes its inception to the generosity of Dr. Coole Kneale, whose name still appears on the Register of Chemists and Druggists.

Liverpool

Mr. Richard Clitherow, chemist and druggist, Mather Avenue, Allerton, sends us the following letter received from Mr. Ronald Nall-Cain, a candidate in the by-election in the Wavertree division of Liverpool, regarding his attitude to the Pharmacy and Poisons Bill: "I have given due consideration to your question, and I agree that poisons, etc., should not be sold indis-

criminately by unauthorised persons, who are not qualified to deal with such products." Polling takes place on June 23.

Part II Students of the Liverpool School of Pharmacy paid a visit to the Fleet Street laboratories of Evans Sons Lescher & Webb, Ltd., on June 11. The party was divided into six groups, and, as in former years, the students much enjoyed the tour. There is a contrast between the pint percolator packed at the school and the 100-gallon type at a wholesale laboratory and from the batch of twenty-four pills to the 1,000 gross; and so with many other items. At the close of a happy and interesting time, the students were entertained by the firm at the Bear's Paw restaurant. Mr. T. Edward Lescher, O.B.E., presided and expressed the pleasure of Messrs. Evans at welcoming the students. The principal (Mr. H. Humphreys Jones, F.I.C., Ph.C.) proposed a vote of thanks; and Mr. Sendall, responding, offered two prizes for the two best essays on the tour.

Miscellaneous

THEFT OF CAMERAS.—A window at the premises of Lyle & Lyle (Bernard Phillips, Ltd.), chemists, Algernon Road, Lewisham, London, S.E., was smashed recently and cameras valued at £10 were stolen.

LONG SERVICE AWARDS.—Presentations of watches, suitably inscribed to commemorate the completion of twenty-one years' service, have been made to the following:—Miss F. E. Shilton, The Wellcome Chemical Works, Dartford; Mr. E. W. Richmond, The Wellcome Physiological Research Laboratories, Beckenham.

IN THE COURTS.—In Bloomsbury County Court, London, recently, the Pharmaceutical Society obtained judgment in the sum of £3 3s., with an order for the return of a membership certificate, against Mr. Andrew G. Stocks, High Street, Camden Town, N.W.1; and in the sum of £1 11s. 6d., with a similar order, against Mr. David S. Wilson, Heathfield Road, Handsworth, Birmingham.

Irish News

Proceedings in the Dail

During the past few days various matters of interest to pharmacists have arisen in the Dail, the principal one being the second reading of the Pharmacopœia Bill on June 10. The Minister for Local Government and Public Health said he was advised that in the Irish Free State they were without a pharmacopœia having statutory application. In reply to questions the Minister said that it was not for his Department to deal with the question of patent medicines, and added that a draft Bill relating to pharmacists was being considered, having for its object the institution of a council on the same lines as the one dealing with dentists. The committee stage of the Pharmacopœia Bill was taken on the following day. The report stage of the Veterinary Surgeons Bill was reached on June 10, and a further statement on the kelp industry was made. On June 11 the committee stage of the Apprenticeship Bill was taken.

Brevities

Mr. Patrick Walsh, L.P.S.I., has acquired Leavy's Medical Hall, Mountmellick.

Mr. F. F. Stafford, Ph.C., Vicar Street, Tuam, Galway, was the winner of £100 in the recent hospitals sweepstake.

Mr. Jack Harper, elder son of the late Mr. Herbert John Harper, the well-known representative of Stemco, Ltd., in Northern Ireland, has been appointed his successor on the same territory. Mr. Jack Harper served his apprenticeship with Thomas McMullan & Co., Ltd., Belfast, and has been their junior representative in Belfast and Northern Ireland.

Beautiful weather favoured the annual excursion of the staffs of J. & J. Haslett, Ltd., wholesale chemists, Belfast, which took place on June 13, to Newcastle, co. Down. After luncheon at the Slieve Donard Hotel, amusements were indulged in, when tea was partaken of. Mr. Brown, on behalf of the staff, tendered thanks to the directors for the personal interest they had taken in providing for everyone's enjoyment, and for the generosity in defraying the major portion of the expenses. Votes of thanks to the catering committee were passed, after which an impromptu concert was held.

"Quis Custodiet Ipsos Custodies" (16/6) writes, with reference to reciprocity between the Irish Free State and Northern Ireland:—"In the first place, the question of what would happen if the Six County Area was united with the Saorstát is a hypothetical question which may never arise. In the second place, it is a question of high politics in which other considerations would dwarf entirely the details of arrangements concerning Pharmacy Acts. The question of reciprocity is, however, of immediate interest and much more important to pharmacists; in spite of a rigorous censorship of the reports of the Council meetings, it is common property in Dublin that the president and his friends are enthusiastically in favour of this step. Also that the draft Pharmacy Bill is now, in secret meetings, being pulled to pieces by certain members of the Council."

Scottish News

Brevities

Many Scottish chemists are already on holiday.

Mr. D. Munro, representative in India of Potter & Moore, Ltd., has returned to Scotland on leave.

Mr. C. C. Proffitt, chemist and druggist, will represent Fassett & Johnson, Ltd., in Eastern Scotland.

Ex-Provost John Raffan, chemist and druggist, has been elected chairman of the Stirling and Clackmannan Pensions Committee.

A Scottish correspondent writes:—"Chemists express keen admiration for Captain Austin Hudson, whose masterful denunciation of the utterly unjustifiable charges levelled against them (*C. & D.*, June 13, p. 689) is worthy of the highest praise."

Duns Town Council has granted licences for the sale of agricultural and horticultural poisons to Mr. T. Stephenson, ironmonger, Market Place; Mr. W. D. Wightman, ironmonger, Market Place; and Mr. E. Walker, representing Hogg & Wood, Todlaw Nurseries.

The classes for pharmaceutical students, which form a part of the Perth Academy Continuation Classes, held their closing meeting on June 9. In addition to students and teachers, there were present the ex-president of the Perthshire Pharmacists' Association (Mr. Macdonald); the vice-president (Mr. Smail); the secretary (Mr. Thomas Harley). Mr. Macdonald occupied the chair, and in his opening remarks congratulated the students on their attendance and progress. Mr. Smail, in a few words, pointed out the advantages of the classes to the students. The prizes given by the Perthshire Pharmacists' Association were presented by Mr. Harley to the following prize-winners:—*Third Year*—(1) Peter J. A. McEwan; (2) Andrew Jackson. *Second Year*—(1) Maurice Anderson; (2) Miss Margaret Stevenson. On behalf of the staff the headmaster proposed a vote of thanks to Mr. Harley. Ex-Bailie Thomas Hunter (convener of the Continuation Classes Committee) congratulated the students on their successful session.

Glasgow

At a recent meeting of Glasgow Corporation Health Committee it was agreed to recommend for acceptance a tender by T. & H. Smith, Ltd., for drugs, etc.

Members of the Glasgow Pharmacy Club (Bowling Section) played for the Cartwright trophy and prizes on Wellcroft Bowling Green, on June 2. During the game, tea was provided for the players by W. B. Cartwright, Ltd. Messrs. R. Wassell, John G. McMaster, D. Edgar and George Jarvie (skip) comprised the winning rink with nine shots up.

Summer Outings

Bristol Branch Excursion

MEMBERS of the Bristol Branch of the Pharmaceutical Society enjoyed an excursion on June 3 to Shearwater and Heaven's Gate. The arrangements were made by the chairman (Mr. W. J. Davis). Members who possessed cars were asked to place seating accommodation at the disposal of others, and a number kindly complied. A party met in Broad Quay, and the cars proceeded independently to Warminster, collected there and went on to Shearwater. Permission had been obtained to park the cars in the grounds, and tea was laid in the boat-house overlooking the lake. After tea the party dispersed, some to walk to Heaven's Gate, while others found the lake the main attraction. The party dispersed at 8 p.m., returning independently to Bristol after a successful outing.

Cheltenham Chemists' Outing

THE annual outing of the Cheltenham and District Branch of the Pharmaceutical Society was held on June 10, but, was, unfortunately, marred by rain. A party of twenty-seven went by charabanc to Malvern, visiting Eastnor Castle *en route*. The castle, standing in delightful surroundings, contains many interesting relics of former times, and valuable paintings which, together with mural tapestries and ornate ceilings, conveys the atmosphere of an old French château. Tea was taken in Malvern, after which Major Conacher, the gifted Spa director of that town, conducted the party to some of the points of interest. The return journey was made via Tewkesbury, where the party was welcomed by Mr. L. L. Stroud, chemist and druggist (Mayor of Tewkesbury).

General Medical Council

(Continued from the C. & D., June 13, p. 678)

RESTORATIONS

The registrar reported that the names of the following persons had been restored to the Medical Register:—

Benbow, Thomas A. P.	Pritchard-Airey W. (S)
Boddie, Flora M. (I)	Quertier, Ernest C. (S)
Breton, Lancelot M.	Rees, Rice
Davin, Alfred L. V. (S)	Rodger, Nora A. McD. (S)
Dickinson, Charles M.	Shepherd, Richard L. F. (S)
Hickey, William (I)	Sinclair, Agnes B. (S)
Kinneir, Guy	Stephen, Leslie D. (S)
Kirkby-Gomes, Sidney G. (S)	Sully, Albert Max
McColl, Alfred G.	Temple-Ralston, B.
O'Meara, John F. C.	Thompson, George M.
O'Riordan, George E. (I)	Van Ryck de Groot, S. H. R.
Parbury, Frederio D.	White, Patrick W. (I)
Perdreau, Joseph A.	Wilton, Stanley

DISCIPLINARY CASES

After certain committee work had been disposed of, the Council considered the case of Mr. James Gordon Bell, M.B., Ch.B. (who also holds the triple qualification), Ballochmoyle House, Dunfermline; a charge arising out of convictions for drunkenness and negligent driving was made against him at the previous session of the Council. The respondent, who addressed the Council and promised to abstain from alcohol, was directed to appear again after twelve months, and to submit the usual testimony as to his conduct in the interval.

The same decision was reached in the case of Mr. George Francis Donaldson Perrott, M.R.C.S., L.R.C.P., 46 Belmont Road, Uxbridge, against whom a similar charge was made. In two other cases, those of Mr. James Rutherford Ratcliffe, M.B., C.M., 1 Grange Street, Port Talbot, and Mr. Percy Bateman, L.R.C.P. and S.Edin., L.R.F.P.S.Glasg., 423 New Cross Road, London, S.E.14, the convictions had been respectively for drunkenness in charge of a motor-car and for simple drunkenness. Mr. Ratcliffe, whose case dated from the previous session of the Council, was informed that his name would be retained on the Register; and Mr. Bateman was given what the president called a final chance by a similar announcement.

Mr. Simeon Moses Cohen, M.R.C.S., L.R.C.P., 1 Ynyswen Road, Treorchy, summoned in consequence of having issued a certificate alleged to be misleading and improper, was discharged with a caution. This case was originally before the Council in November 1930.

The case of Mr. Reginald Lyon, M.B., Ch.B., c/o Clydesdale Bank, Ltd., South Queensferry, charged in November 1929 before the Council with a grave personal offence, was taken *in camera*. The respondent's name was retained on the Register.

On the resumption of the proceedings on June 3, the case of Mr. Herbert Castlemain Hocken, L.S.A., c/o Mr. E. Peet, LL.D., 11 Fetter Lane, E.C.4, was considered. The charge was:—

"That, being a registered medical practitioner, you have sought to attract to yourself patients and to promote your own professional advantage

"(1) by being associated with or employed by an individual and/or firm who, to your knowledge, sought to attract patients by advertising and canvassing through the medium of articles appearing in the 'Daily Sketch' relating to an alleged cure for tuberculosis known as the 'Newell Treatment';

"(2) by accepting persons as patients who to your knowledge had come to you as the direct result of the said articles;

"(3) by seeking to induce registered medical practitioners to use in the treatment of their patients and to make themselves responsible for a medicament of whose properties and action such practitioners were not fully informed. . . ."

At the close of the hearing the president announced that the allegations in sections 1 and 2 of the charge had been proved, and that the respondent's name would be erased from the Register.

Association Meetings

Enfield.—A meeting of chemists in the Enfield district was held on June 10. The chair was taken by Mr. C. Rock, who explained the object of the meeting. For some time, he said, it had been felt that it was desirable to meet together in the interests of pharmacy, both locally and in a wider field, and that for this purpose it was proposed to form an association in the Enfield district. He wished to emphasise that in doing so there was no feeling of antagonism to the North London Association; on the contrary, it was desirable to act whenever possible in close collaboration with them. It was proposed by Mr. Dawson, seconded by Mr. Temperton, and carried unanimously, that the meeting form an association. The following officers were elected:—*President*, Mr. M. C. Rock; *Vice-President*, Mr. R. Cross; *Secretary*, Mr. G. T. Pierce; *Treasurer*, Mr. H. Temperton. The president suggested that the Association be called the Enfield and District Chemists' Association. It was agreed to form an Executive Committee to deal with the Pharmacy and Poisons Bill, trade and social matters, to consist of the president, vice-president, secretary and treasurer, with Messrs. Mellowes, Hunnings and Dawson. Mr. Mellowes said that many doctors would like to give up dispensing if a satisfactory scheme could be evolved, and the Executive Committee undertook to prepare a scheme for discussion at the next meeting, with a view to bringing it before the doctors at a later date.

Hull.—A meeting of the Hull Chemists' Association and Branch of the Pharmaceutical Society was held on June 9, Mr. C. A. Hewitt (president) in the chair. The president referred to the loss of Mr. Jones, who had always been a loyal and enthusiastic supporter, and also to the death of Mr. Thompson, who had been a member of the Association. Prizes were presented to the students attending the Technical College classes who had made the most satisfactory progress during the past year. The following officers were elected for the ensuing year:—*President*, Mr. Boyce; *Vice-Presidents*, Mr. Sawyer and Mr. Smart; *Secretary*, Mr. Wright; *Minute Secretary*, Miss E. Palmer. On the proposal of Mr. F. H. Palmer, seconded by Mr. Twigg, it was decided to make a gift of £5 5s. each from the Association and amusement funds to the Society's Benevolent Fund.

London (S.E.).—The nineteenth annual meeting of the South-East London Chemists' Association was held on June 9, Mr. J. E. Lockyer presiding. There was a good attendance. Mr. E. Oswald Wells (secretary), presented his report giving interesting figures indicating the progress made by the Association during the year. A satisfactory balance sheet was presented by Mr. E. Richardson. The following officers were elected for the ensuing session:—*President*, Captain J. J. G. Hay; *Vice-Presidents*, Mr. C. H. Foster (Forest Hill) and Mr. S. Francis (Bermondsey); *Treasurer*, Mr. E. Richardson (Brockley); *Secretary*, Mr. E. Oswald Wells. Retiring members of the Council were re-elected. The meeting voted the sum of £5 5s. to the Pharmaceutical Society's Benevolent Fund.

Coming Events

This section is reserved for advance notices of meetings or other events. These should be received by Wednesday of the week before the meetings, etc., occur.

Sunday, June 21

Birmingham Pharmaceutical Association. Motor run to Alton Towers.

Liverpool Pharmacy Club. Picnic to Delamere Forest. Meet Lime Street Station, 9.45 a.m.; fare 2s. 6d.

Wednesday, June 24

Aberdeen Pharmaceutical Association. Annual outing to Loch-an-Eilean, Speyside; train leaves Aberdeen at 1 p.m.

Thursday, June 25

Annual Inter-association Sports, Maw's Sports Ground, New Barnet, at 3 p.m.

Legal Reports

Opticians at Variance.—In the Chancery Division of the High Court, London, on June 9, Mr. Justice Luxmoore heard an application by the Joint Council of Qualified Opticians for an interim injunction against Mr. Alfred Charles Toye and others, Trinity Road, S.W., to restrain them until trial from using the phrase, "the Joint Council of the Association of Qualified Opticians," or any style, in certificate or advertisement, likely to cause confusion with the plaintiff body or the register of ophthalmic opticians kept by the plaintiffs. Mr. A. C. Toye appeared in person. The motion on behalf of the plaintiffs was made by Mr. Spens, K.C., who observed that Mr. Toye had made an affidavit that the words "joint council" had not been or would not be used, but counsel thought they had appeared on show-cases or some documents. Mr. Toye said that if the complaint was against the use of the term "joint council" he was not concerned to insist on the use of these words at all. But since 1923 the name "the Association of Qualified Opticians" had been employed. His Lordship: The best way is to omit the use of the words "joint council." Mr. Toye: I agree to that. His Lordship: If you can give that undertaking perpetually, and not merely till trial, it might put an end to the whole matter. Mr. Toye said he was exceedingly anxious that the matter should not be put an end to. He wanted a trial. Mr. Spens, after consultation, intimated that Mr. Toye had agreed to sign an undertaking, till judgment or further order, not to use the words "joint council" or "joint" or "council" or permit the words to be used in connection with the name under which the defendants or any of them were carrying on activities under the name Association of Qualified Opticians or Association of Qualified Opticians of Great Britain.

Rival Veterinary Medicines.—In the Chancery Division of the High Court, London, on June 12, the case of Day, Son & Hewitt, Ltd., v. Southall Brothers & Barclay, Ltd., came before Mr. Justice Bennett on a motion by the plaintiffs for an injunction restraining until the trial of the action the alleged infringement by the defendants of the plaintiffs' trade mark, and from passing off their goods as the plaintiffs'. Mr. Moritz, K.C., and Mr. Shelley appeared in support of the motion; Mr. Trevor Watson, K.C., and Mr. Macgillivray were for the defendants. Mr. Moritz said that the motion came before his lordship when the defendants continued an undertaking given originally to Mr. Justice Eve. The plaintiffs were a firm of manufacturing chemists who had for something like eighty years been manufacturing and selling a veterinary medicine called Red Drench. There was no trade mark until 1876, when the first Trade Marks Act came into force. The plaintiffs then registered the mark of the words "Red Drench." The plaintiffs had from time to time to complain of infringement, but until recently there had been nothing very serious. They discovered in Ireland that a certain amount of infringement was going on, and in the course of the Irish litigation they discovered that the defendants were selling a cattle drench which they called Red Cattle Drench. The defendants had been selling the drench in four different sorts of packages. It appeared that on March 31 last the defendants withdrew one of the packages; but they claimed the right to use two others, and with regard to the fourth, with a wrapper which was printed on yellow paper and was called Red Star Cattle Drench, they claimed the right to use that, and for the purpose of this motion he (Mr. Moritz) did not challenge that. If counsel for the defendants would continue his undertaking till the trial, he (Mr. Moritz) was content with that on this motion. Mr. Macgillivray said he had no instructions to give that undertaking then. Mr. Moritz added that the defendants had filed three affidavits, all sworn by Mr. Mann, a director of the defendant company, who said that he had never heard of the plaintiffs' Red Drench. There was in evidence a catalogue of the defendant company in which the plaintiffs' preparation

Red Drench was plainly offered for sale under that name. The defendants claimed that they were entitled to call a drench Red Cattle Drench. They further said, "We have been doing it for forty years without complaint from you." The answer to that was twofold. In the first place they had given no evidence of their sales for forty years but they had given evidence of their sales for the years 1927 to 1930, and the total sales amounted to £75 or £80 a year. There was no evidence whatever of sales in prior years. As regarded the other answer, when plaintiffs had a mature mark it was idle for the defendants to say "We have been using it for forty years." In his submission there was a plain infringement. Counsel read an affidavit by Mr. Hewitt, a director of the plaintiff company, in support of his motion. Mr. Macgillivray, for the defence, read an affidavit by Mr. Mann, a director of the defendant company, in which he said that the defendants had sold their drench continuously for a large number of years, and had never received any complaint. In March 1931, the defendants received a communication from Irish chemists asking whether the defendants' cattle drench was an infringement of the plaintiff company's production. The defendant company, after consideration, decided that the wrapper of one of their packages might mislead certain people; this wrapper was immediately withdrawn from use, and since that date no goods had been supplied in that particular wrapper. It was not thought that either of two other kinds of wrappers used for packages could be mistaken for plaintiffs' preparation, and they had been continued. In 1913 the defendants registered the trade mark "Red Star," and the defendants had sold large quantities of animal medicines under the style of Red Star. Mr. Moritz said he would be content with the undertaking which had been given being continued till the trial. Facilities would be given, his lordship said, for an early trial of the action.

Business Changes

MR. D. NICHOLSON, chemist and druggist, has acquired the business of Mr. W. Harrower, chemist and druggist, Kinglassie.

MANFIELD, LTD., chemists, have acquired the business of Mr. J. Berlin, chemist and druggist, 272 Stamford Hill, London, N.16.

MR. H. G. TIBBETT, chemist and druggist, has opened a pharmacy and optical department at Stonecot Parade, Sutton Common, Surrey.

MR. V. W. ANDERSON, chemist and druggist, has taken over the business of Mr. A. W. W. Thomas, 111 Prescot Road, Liverpool.

MR. ROBERT L. WILSON, chemist and druggist, has taken over the business of Mr. J. W. Moorhouse, Ph.C., 12 Market Hill, Barnsley.

MR. EDWARD MULLETT, 4 London Street, London, E.C.1, has joined Edwin Fischel & Co., Ltd., 20-21 St. Dunstan's Hill, E.C.3, as manager of their drug department.

MR. FORBES TAYLOR and MR. RAYMOND V. LEE have been elected directors of D. C. Stone & Co., Ltd., manufacturers' agents and distributors, 169 Regent Street, London, W.1.

MR. J. G. HOPEKIRK, chemist and druggist, has acquired the business of the late Mr. Alexander H. Jeffrey, chemist and druggist, 21 Byres Road, Partick, Glasgow.

THE business of Mr. E. H. G. Bennett, chemist and druggist, 34 Norwich Road, Ipswich, is being closed, and the stock and fixtures have been purchased by Mr. G. W. Hales, chemist and druggist, 21 Tackett Street and branches.

New Companies and Company News

P.C. means Private Company and R.O. Registered Office.

NORTHERN SUNDRIES, LTD. (P.C.).—Capital £1,000. Objects: To carry on the business of analytical, manufacturing and pharmaceutical chemists.

RACH PRODUCTS, LTD. (P.C.).—Capital £2,000. Objects: To carry on the business of dealers in chemicals, dye stuffs, etc. Solicitor: H. H. Atteridge, 2 Bond Court, Walbrook, E.C.4.

JOHN TYE & SON, LTD. (P.C.).—Capital £3,000. Objects: To acquire the business now carried on by W. Owen at 457 Caledonian Road, Lower Holloway, as "John Tye & Son," and to carry on the business of manufacturing chemists, medicinal capsule makers, glassblowers, etc. Solicitor: W. R. Burrows, 57-8 Chancery Lane, W.C.2. R.O.: 457 Caledonian Road, N.

VIKING RENNET CO., LTD. (P.C.).—Capital £1,000. Objects: To adopt an agreement with J. G. P. Ibbotson to take over the business carried on at 19 Clapton Square, E.5, as the Viking Rennet Co., to acquire the trade marks 294273 (relating to "Viking Rennet"), 383413, 428476 (London) and 1071/22 (Pretoria), and to carry on the business of manufacturers of and dealers in rennet, etc. R.O.: 19 Clapton Square, E.5.

ILFORD, LTD.—Interim dividend on ordinary shares of 2½ per cent., less tax. Ordinary capital is £574,200.

THE BRITISH DRUG HOUSES, LTD.—Quarterly dividend of 1¼ per cent. on preference shares, payable June 30.

BRITISH ALIZARINE CO., LTD.—Satisfaction in full on May 19, 1931, of mortgage dated September 27, 1921, and registered October 4, 1921.

G. B. KENT & SONS, LTD.—Consideration of payment of half-year dividend on 5½ per cent. cumulative participating preference shares, due on July 1, deferred until after close of the financial year.

SOLIDOL CHEMICAL (FRANCE), LTD.—Report to March 31 shows net loss, after charging depreciation, directors' fees and management expenses, of £2,484 (against profit of £5,911). Deducting credit brought in leaves a debit forward £73. Report states there has been a distinct and sustained improvement in business during last few months.

COMPANIES DISSOLVED.—Notice has been given in "The London Gazette" that the names of the under-mentioned companies have been struck off the register and the companies dissolved:—Associated Perfumers, Ltd.; Florogen Co., Ltd.; Flugel & Co., Ltd.; Hadfield's Chemical Works, Ltd.; Mersey Chemical Works, Ltd.; Phos, Ltd.

J. & E. ATKINSON, LTD.—Report shows a loss, after providing for losses incurred by subsidiaries, of £34,194, against profit of £28,033 for the preceding year. Dividend for year on preference shares amounting to £3,000 paid. Brought in £15,029, making net debit £22,165, which it is proposed to liquidate from general reserve. Plant, buildings and land valued at end of 1930 show a surplus over book values at that date. Reserve fund, £83,800.

TAYLORS (CASH CHEMISTS) TRUST, LTD.—Net profit to March 31 was £40,534, against £78,344; £10,000 transferred from reserve and £10,017 brought forward. In September last 5 per cent. interim dividend was paid on the deferred ordinary shares, against 20 per cent. for the previous year. In view of prevailing condition of trade, which, in the opinion of directors, may not

materially improve in immediate future, directors regret that they cannot recommend payment of final dividend upon deferred shares, considering that the best interests of company will be served by pursuing a conservative policy at the present time.

THE "SANITAS" TRUST.—Net profit to May 31 was £65,722, against £65,531. Dividend paid on participating preference shares to March 31 at the rate of ten per cent., the same as last year. Carried forward, £30,835, against £14,113. Combined profits of constituent companies (the "Sanitas" Co., Ltd., and W. Woodward, Ltd.) were in excess of those of preceding year. Though economic conditions have had a prejudicial effect on profits of Oppenheimer Son & Co., Ltd. (whole of share capital of which was purchased by "Sanitas" Co. last year), directors of "Sanitas" Co. authorise statement that they believe these adverse conditions to be largely temporary, and that purchase will prove sound and profitable one.

VIROL, LTD.—The accounts for the year ended March 31 show a net profit, including the amount brought forward, of £99,994, as compared with £108,795 for the previous year. Deducting interest on the six per cent. notes, the Preference dividend, including that due on April 1, 1931, interim dividend on the Ordinary, and after writing off £15,000, against £20,000, from the Virol and Milk development account, there remains £69,774, as compared with £76,587. The directors recommend a final dividend of 2½ per cent. on the Ordinary, making 10 per cent. for the year, against 15 per cent. The balance forward is £67,899. It is proposed to pay an interim dividend of 5 per cent. on account of the year ending March 31, 1932, which will be paid simultaneously with the dividend for the past year. The balance of the outstanding notes, amounting to £57,650, was paid off last July.

BEECHAM'S PILLS, LTD.—Profits to March 31 amount to £163,492, being £39,394 less than previous year. Notwithstanding extreme economic depression, profits from company's principal business—that is, its home trade—have been well maintained during whole of period. Fall in profits is largely accounted for by reduction in export trade. In January last company acquired substantial interest in Yeast Vite. With a view to acquiring remaining shares in Yeast Vite an offer was made to remainder of shareholders in that company to acquire their shares by exchange. Offer was accepted by nearly whole of remaining shareholders of Yeast Vite, and since March 31 last directors have issued further shares in satisfaction of purchase consideration for these shares. Dividend received on Yeast Vite shares in respect of period prior to date of purchase has been applied in reduction of purchase price. No dividend has yet been declared out of profits subsequent to December 31, 1930, and no credit has been taken in accounts for anticipated income from Yeast Vite shares acquired either by purchase or exchange.

Bankruptcy Reports

Re Joseph Harrison Isaacs, 57 Swilly Road, Swilly, Devonport, Plymouth, chemist and druggist.—The trustee has issued a statement which shows that stock has realised £341 7s. 2d.; furniture, £26 12s. 6d.; and book debts, £22 16s. 8d. A first and final dividend of 3s. 4d. in the £ is now declared on liabilities of £1,542 14s. 4d.

Alfred Gordon Cowper Cartwright, 558A Coventry Road, Small Heath, Birmingham, druggist, etc. Debtor's public examination was held on June 10, in Birmingham, when a statement of affairs was submitted which disclosed gross liabilities of £413 8s. 6d., of which £379 5s. 6d. was expected to rank for dividend, whilst the assets were estimated to produce £76 9s. 8d., leaving a deficiency of £302 15s. 10d. The failure was attributed to "keen competition, heavy expenses and depreciation of stock."

Pharmaceutical Society of Ireland

Council Meeting

THE monthly meeting of the Council of the Pharmaceutical Society of Ireland was held at 67 Lower Mount Street, Dublin, on June 9, Mr. Denis J. Nugent (president) in the chair. The following members of the Council were also present:—Dr. Michael Ryan (vice-president), Mr. Patrick Brooke Kelly (treasurer), Sir Thomas Robinson, Messrs. John Smith, John J. Roche, P. A. Brady, P. D. Larkin, Joseph Gorry, P. J. Fielding, T. Costelloe, M. J. Kieran and Joseph F. Costello. Mr. James J. R. Kerr (registrar) was in attendance.

NEW MEMBER WELCOMED

THE PRESIDENT referred to the presence at the meeting of Mr. Joseph F. Costello, who had been co-opted a member of the Council at the May meeting, and said that, judging from the number of letters he had received from pharmacists throughout the country, Mr. Costello's co-option was a very popular affair. He felt certain that Mr. Costello's wisdom and dignity would add lustre to the Council. (Applause.)

MR. COSTELLO expressed his thanks to his brother councillors for having co-opted him. He resided, he said, very far away from the headquarters of the Society, but he would endeavour to attend as many of the meetings as possible.

VOTE OF CONDOLENCE

ON the motion of Sir THOMAS ROBINSON, seconded by Mr. GORRY, a vote of sympathy with the relatives of the late Mr. Thomas B. McHugh, M.P.S.I., was passed.

NEW REGULATIONS APPROVED

THE registrar submitted a letter from the Secretary of the Department of Justice, stating that he had been directed by the Minister for Justice to inform the Council that an Order had been made on May 19 approving of the amendment of the Regulations as embodied in the resolution of the Council of the Society passed on May 12.

LETTER FROM MEMBERS AND LICENTIATES

THE registrar submitted a letter signed by a number of members and licentiates of the Society stating that they, being seriously alarmed by current rumours concerning the proposals for a new Pharmacy Bill, respectfully suggested that the time was opportune for making the draft suggestions known.

THE PRESIDENT stated that the Government draft sent to the Council was a confidential document.

THE registrar was instructed to reply to the communication from the members and licentiates.

APPLICATION FOR RE-REGISTRATION

THE registrar submitted a communication from Mr. John Rice Corrigan, Paarl, Union of South Africa, whose name had been struck off the Register owing to the non-receipt of a reply to the usual statutory letter, requesting that his name be replaced on the Register.

THE Council directed that Mr. Corrigan's name should be restored to the Register.

CHANGES OF ADDRESS

THE following notified changes of address:—

Mr. James F. Hogan, L.P.S.I., to Kenmare Pharmacy, Kenmare, co. Kerry; Mr. R. J. McKinstry, L.P.S.I., to the Medical Hall, Thomastown, co. Kilkenny.

PRELIMINARY REGISTRATION

THE following, who submitted certificates from other bodies, were admitted to preliminary registration:—

Miss Mary Kinsella, Miss D. D. Greene, Miss K. Humphreys, Messrs. Dowling, F. D. Gillen and C. M. O'Sullivan.

REPORTS FROM COMMITTEES

Reports from the Law Committee, the House and Finance Committee and the Schools Committee were received and adopted.

HERBARIUM SCHEME ADOPTED

ARISING out of the report of the Schools Committee the following scheme was adopted:—

Herbarium should be divided into the following sections:—
(1) *Materia Medica*: Collection of B.P. chemicals, specimens of roots, barks, leaves, fruits, resins and gums; (2) *Botany*: Collection of preserved flowers, collection of microscopical slides; (3) *Books of Reference*: Collection of suitable books as recommended. A demonstrator should be appointed to assist students. The person appointed would be responsible for the general conduct of the establishment and should receive a fee in proportion to the income from students' fees.

REPORT ON DEATHS

THE registrar submitted a report on the deaths of Dr. D. Crowley, M.P.S.I., Loughrea; Mr. James Nethery, L.P.S.I., Dugannon; Mr. C. J. Johnson, L.P.S.I., Carlow; Mr. Michael Farrell, L.P.S.I., Tranmore; Mr. James W. Peatt, L.P.S.I., Monaghan; Mr. Wm. Keown, R.D., Monaghan, and Mr. James E. Cooper, R.D., Athy.

PHARMACOPOEIA COMMISSION

ARISING out of the receipt of a report of the Chemistry Subcommittee of the Pharmacopoeia Commission, Mr. John Smith (representative of the Pharmaceutical Society of Ireland on the Pharmacy Subcommittee) stated that it was expected that the new Pharmacopoeia would be in print by the end of December. It had then to lie on the table of the House of Commons for three months, so that it would probably be the end of April before it became official.

SUBSCRIPTIONS TO THE BENEVOLENT FUND

THE registrar read a list of forty-one subscriptions to the Benevolent Fund.

ON the motion of the VICE-PRESIDENT, seconded by Mr. BROOKE KELLY, a vote of thanks to the subscribers was passed.

ELECTION OF EXAMINER

ON the motion of the VICE-PRESIDENT, seconded by Mr. BROOKE KELLY, Miss Mary Cotter was re-elected for the coming year as examiner in the Preliminary examination.

ELECTIONS AND NOMINATIONS

ON the motion of the PRESIDENT, seconded by the VICE-PRESIDENT, the following were elected to membership:—

Mr. M. P. McGoldrick, Ph.C., Central Medical Hall, Ballinrobe, co. Mayo; Mr. J. Curran, Ph.C., Greenbank, Pudsey, Leeds; Mr. J. J. Callanan, Ph.C., Bellevue Hotel, Lisdoonvarna, co. Clare; Mr. R. A. Willoughby, Ph.C.,

Medical Hall, Castlecomer, co. Kilkenny; Miss M. Murphy, Ph.C., 4 Anglesea Terrace, Anglesea Street, Cork; and Mr. P. J. Griffin, Ph.C., Medical Hall, Tullow, co. Carlow.

On the motion of the PRESIDENT, seconded by the VICE-PRESIDENT, Mr. Francis McGrath, R.D., 16 South Main Street, Bandon, co. Cork, was elected to associateship.

On the motion of the PRESIDENT, seconded by Mr. BROOKE KELLY, the following were nominated for membership:—

Miss Caitlin O'Kelly, Ph.C., 8 Winton Road, Leeson Park, Dublin; Dr. D. McLoughlin, Ph.C., 3 Lower St. Brigid's Road, Drumcondra, Dublin; Mr. D. F. McCarthy, Ph.C., Offaly Pharmacy, Tullamore, Offaly; Mr. P. A. Brennan, Ph.C., The Pharmacy, Athboy, co. Meath; Mrs. Carney, Ph.C., The Pharmacy, Terenure Road, Rathgar, Dublin; Mr. J. K. Whelehan, Ph.C., 38 Pearse Street,

Mullingar, co. Westmeath; Dr. H. S. Laird, Ph.C., 5 Neville Road, Rathgar, Dublin; Mr. Patrick M. Kavanagh, Ph.C., 1 High Street, Galway; Mr. Daniel McLoughlin, Ph.C., 17 Saville Place, Kennington, London, S.E.11; Miss Laura O'Connor, Ph.C., Ardeevin, Connaught Avenue, Cork.

On the motion of Mr. P. J. KILLACKY, M.P.S.I., seconded by the PRESIDENT, Mr. Thomas Bernard Cahill, Ph.C., Main Street, Castlebar, co. Mayo, was nominated for membership.

PHARMACY LEGISLATION

The Council were engaged at a special meeting held prior to the ordinary monthly meeting in considering the Government's draft proposals for the Pharmacy Bill, and the consideration of the matter was resumed after the conclusion of the ordinary meeting.

Therapeutic Substances Regulations

(Concluded from the C. & D., June 13, p. 682)

In the Third Schedule the name arsenamine is used in place of the term arsenobenzene. In Part III of the same Schedule a test for neoarsenamine with stannous chloride solution is omitted.

In the Fifth Schedule (which deals with pituitary (posterior lobe) extract) the following clause is inserted under the heading "Unit of Standardisation":—

When the preparation is a solution of a separated active principle, the unit employed in indicating the strength shall be the amount of that active principle yielded to extraction by 0.5 mgm. of the standard preparation as determined by the appropriate biological test.

This Schedule is followed by a Sixth Schedule, which in substance repeats the provisions of the Therapeutic Substances Catgut Regulations, 1930. The following is the text:—

STERILISED SURGICAL LIGATURE

Proper Name

1.—Sterilised surgical ligature is any ligature or form of binding material prepared from the gut or any tissue of an animal and offered or intended to be offered for sale as sterile and ready for use in surgical operations upon the human body. The proper name of the substance shall be "sterilised surgical ligature" followed, in brackets, by the accepted scientific name or a title descriptive of the true nature and origin of the substance as, for example:—"sterilised surgical ligature (catgut)" or "sterilised surgical ligature (horsehair)."

Test for Sterility

2.—Every batch of sterilised surgical ligature shall consist entirely of material collected under uniform conditions and simultaneously subjected or intended to be subjected to the same process or series of processes for rendering it sterile.

3.—A sample of sterilised surgical ligature shall be taken from each batch consisting of not less than 1 per cent. of the whole quantity of material constituting the batch. The sample shall, when practicable, be the contents of at least one whole container or packet, and shall be drawn at random from the whole number of containers or packets constituting the batch.

4.—The sample shall be subjected to the following processes for testing its sterility:—

(a) the container or packet shall be opened and the sample removed with aseptic precautions.

(b) after all the adherent fluid has been drained off as completely as possible, the sample shall be placed entire in a test tube at least 3.5 cms. in diameter, and 17.5 cms. in length, and containing 50 mls. of sterile distilled water. This tube shall then be closed by some method which will preclude the access of bacteria, and be placed in an incubator at 37° C. for 24 hours.

(c) after this incubation, the sample shall be aseptically transferred to a similar tube containing a solution of 1 per cent. of sodium thiosulphate and 1 per cent. of crystallised sodium carbonate in distilled water, the tube and solution having been previously sterilised in the autoclave. In this solution the sample shall again be incubated for 24 hours at 37° C.

(d) after the second incubation the sample shall be again removed aseptically and, without further washing, shall be examined for the presence of living bacteria and their spores.

The sterility tests shall be carried out either—

(i) by the method prescribed in Articles 18 (1) (2) (3), and 19 (1) of these Regulations; or

(ii) by placing the sample in a tube at least 3.5 cms. in diameter and 17.5 cms. in length, containing not less than 50 mls. of a culture medium prepared by dissolving 0.2 per cent. of prepared agar-agar in a nutrient bacteriological broth*, the mixture being sterilised in the autoclave:

Provided that, if a manufacturer satisfies the licensing authority that he has already in use tests for the presence of living aerobic or anaerobic bacteria, and that these tests, as applied by him, will detect the presence of such bacteria in the ligature as ready for issue with a certainty at least equal to that afforded by the application of the tests prescribed in the above-mentioned articles, the licensing authority may approve the use of such tests in the place of the tests so prescribed; but, in that event, the authority may at any time withdraw such approval and require the manufacturer to carry out the prescribed tests.

(e) the tubes of culture medium containing the sample shall be incubated at 37° C. for 12 days, and examined daily for the growth of bacteria.

(f) if no such growth is detected during this period, the batch from which the sample was drawn shall be treated as free from living bacteria and their spores, and as having passed the test:

Provided that, if a licensee satisfies the licensing authority that the tests prescribed in sub-paragraph (c) of this paragraph for freeing substances from combined or adherent antiseptics are not suitable for application to the substance which he is licensed to manufacture or import, the licensing authority may approve in writing the application of alternative tests in place of the tests so prescribed.

Labeling

For the purpose of Article 10 (3) (b) of these Regulations, the date on which the manufacture of the batch is completed shall be the date on which the test for sterility was completed.

* *Note*.—The broth may preferably be made by the digestion of meat with trypsin (Douglas's broth or Hartley's modification thereof).

Sporting Events

THE annual match between Blandfield Golf Club (T. & H. Smith, Ltd.) and the Edinburgh Chemists' Golf Club was played over Ratho Park Course on June 10. The results are as follows:—

Blandfield		Edinburgh Chemists	
A. S. Cooper & E. W. Middleton	... ½	M. Stoddart & W. Mackintosh	... ½
A. Nimmo & R. Y. Meikle	... 0	H. D. Robson & J. Ross	1
R. M. Wallace & J. W. Laing	... 0	W. A. M. Hourston & J. P. Gibb	1
R. Heslop & D. Mackintosh	... ½	A. Young & J. Bowman	½
J. A. Hiddleston & W. Fawns	... 0	W. S. Spence & W. H. Chambers	1
W. C. O'Brien & R. W. Pringle	... 0	W. Barron & G. P. Cooper	1
	1		5

THE London Chemists' Golfing Society held a meeting at Old Fold Manor on June 4, in delightful weather. Thirty-three members competed for the president's prize



Photo. [Mail] GROUP TAKEN AT THE LONDON CHEMISTS' GOLFING SOCIETY MEETING AT OLD FOLD MANOR

(won by C. E. Harrod), and the "British and Colonial" cup (won by E. G. Nice). The leading scores were as follows:—

C. E. Harrod ... 90-12=78	R. G. Pickles ... 86-5=81
E. G. Nice ... 95-16=79	H. M. Culmer 96-14=82
J. Dear ... 96-16=80	H. B. Walker 99-16=83

A meeting was held recently at the Finchley golf course to compete for the Sanger cup. The winner was J. Dear (96-16=80).

THE annual open competition for the golf trophy presented by The British Drug Houses, Ltd., was played by Cardiff chemists over the Pyle and Kenfig course recently. The weather was mixed. The following were the principal scores:—

K. Jones ... 71-4=67	A. Barron ... 97-20=77
W. Evans ... 97-24=73	E. G. Hamell 104-25=79
A. Nowell ... 90-16=74	T. Fowler ... 98-18=80
G. L. Thomas 87-12=75	J. C. Jenkins 101-20=81
J. Murray ... 89-12=77	R. L. Hopkins 100-18=82
J. Yannaghas ... 89-12=77	C. Allanson ... 104-21=83

A remarkable feature of the competition was the score returned by Kenneth Jones, being one over the amateur record for the course. The cup was won by Mr. Whitney Evans (Rubina), as Mr. Kenneth Jones, not being a chemist, was ineligible. In presenting the cup, Mr. "Bill" Jones (ex-captain) made a happy speech. The total proceeds of the meeting are to be given to the Pharmaceutical Society's Benevolent Fund. Owing to the weather, the competitions for the Newbery, Allenbury's and Torry trophies were postponed until September.

RECENT activities of the British Drug Houses' Sports Association have included the following:—*Cricket Club*.—In a match played at Motttingham between Stevenson & Howell's cricket club and The British Drug Houses' cricket club, in the Wholesale Chemists' and Druggists' Cricket Championship, the result was a draw, with the former 154 for 9 (declared) and the latter 112 for 7. *B.D.H. Gentlemen's Swimming Club*.—The sealed handicap, held on June 9, at Pitfield Street baths, was won by R. Digby, second and third being H. North and G. Spall respectively. *Lawn Tennis Club*.—the match between the B.D.H. Lawn Tennis Club and the G.P.O. Stores, Holloway, played on the latter's ground on June 14, resulted in a win for the home team. The G.P.O. won the four ladies' doubles, three gents' doubles, and two mixed doubles, and B.D.H. won one gents' doubles and two mixed doubles.

THE annual contest for the Cartwright golf trophy between the chemists of Aberdeen and Dundee took place recently at Edzell; Aberdeen were the victors by 10 matches to 7. In the Panmure Hotel, where tea was served, Mr. Ferrier (Dundee) welcomed the company, and congratulated Aberdeen on their victory. He called on Mr. Logan (W. B. Cartwright, Ltd.), to present the trophy. Mr. Logan, in handing over the trophy to Mr. M. C. Ross (captain of the Aberdeen team), referred to the cordial feelings existing between the chemists of Aberdeen and Dundee, and claimed that the trophy presented by his firm had strengthened and cemented this friendship. Mr. Ross acknowledged, and asked Mrs. Ross to present the prizes won by the ladies in the putting competition. The prize-winners were as follows:—(1) Mrs. Robertson (Dundee); (2) Miss Farquhar (Aberdeen); (3) Miss Taylor (Aberdeen). The teams were as follows:—M. C. Ross, ½; J. Robertson, ½; J. Forsyth, 0; M. Watson, 1; J. Rattray, 1; J. C. Ross, 0; J. McConnach, 1; A. Barrie, 0; J. Watt, 1; J. Whyte, 0; C. A. Michie, 0; F. Bennett, 1; J. Michie, ½; J. Robertson, ½; W. S. Taylor, 1; C. Stephen, 0; W. Thomson, 0; J. Ferrier 1; H. P. Forbes, 0; C. Duncan, 1; W. Marshall, ½; W. McConnachie, ½; P. Murray, 1; A. Robertson, 0; S. Anderson, 1; J. Reoch, 0; A. Booth, 0; P. Kelly, 1; M. G. Duncan, ½; J. H. Ferguson, ½; A. Forsyth, 1; B. Robertson, 0; H. M. Dungan, 1; J. Anderson, 0.

THE annual rink competition for the Ayrton, Saunders' trophy and the annual meeting of the Scottish Chemists' Bowling Association took place in Edinburgh on June 3. Sixteen rinks entered for the competition, representing eight from the west and eight from the east; the latter won by three shots. The rinks were as follows:—*East*, A. W. Ritchie, 29; J. H. Tainsh, 22; D. Mathewson, 13; W. D. Richardson, 21; J. Carmichael, 22; J. B. McLaren, 23; J. R. Milne, 22; T. Bayne, 11; total, 163. *West*, C. Dawson, 12; D. King, 25; W. Spence Culbert, 18; G. Jarvie, 35; J. T. Simpson, 29; J. C. Murdoch, 16; D. R. MacKay, 9; H. Morison, 16; total, 160. The cup and prizes were won by G. Jarvie's rink (twenty-four shots up), with A. W. Ritchie's rink (twenty shots up) as runners-up. The chairman (Mr. W. Seivwright), having congratulated Mr. Jarvie on his success, called upon Mr. Shaw (representative of Ayrton, Saunders & Co., Ltd.) to present the cup and prizes. The chairman then presented the runners-up with their prizes. Mr. Jarvie, on behalf of his rink, thanked the donors of the cup and prizes, and Mr. Hutton, in the absence of his skip, thanked the members for their prizes. The following officers were elected for 1931 and 1932:—*President*, Mr. J. Hutton (Brehin); *Vice-President*, Mr. P. Nisbet (Leith); *Secretary and Treasurer*, Mr. J. S. B. Heddie (Leith). The members of committee were reappointed. Perth was chosen as the venue for the 1932 match. The secretary drew attention to the pairs competition to be played on July 8.

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PHARMACY

American Formulas.—The following formulas from "The Pharmaceutical Recipe Book," published by the American Pharmaceutical Association, for non-official preparations are supplementary to the selection published in the *C. & D. Diary*, 1931:—

CASTOR OIL JELLY

I	
Castor oil	90.0 c.c.
Stearic acid	2.5 gm.
Sodium hydroxide ..	0.6 gm.
Gluside	0.1 gm.
Oil of peppermint ..	0.2 c.c.
Alcohol (95 per cent.)	5.0 c.c.

Dissolve the sodium hydroxide in the alcohol, add the castor oil and stearic acid, heat until combined and add the other ingredients, then allow to cool.
Dose: 4 to 10 gm.

II

Spermaceti	3.0 gm.
Castor oil	90.0 c.c.
Ground alkanet, to colour	
Gluside	0.1 gm.
Oil of peppermint ..	0.2 c.c.
Alcohol (95 per cent.)	5.0 c.c.

Melt the spermaceti. Add to this the alkanet-coloured castor oil, slightly warmed. Dissolve the oil of peppermint and the gluside in the alcohol, and add to the castor oil mixture. When cool, this will set to the consistence of a jelly.

Dose: 4 to 10 gm.

ELIXIR OF SODIUM DIETHYLBARBITURATE

Sodium diethylbarbiturate	20 gm.
Compound tincture of cardamom (U.S.P. X)	50 c.c.
Aromatic elixir (U.S.P. X)	120 c.c.
Water	to 1,000 c.c.

Dissolve the sodium diethylbarbiturate in 500 c.c. of distilled water. Add the aromatic elixir and compound tincture of cardamom and sufficient water to measure 1,000 c.c.

Dose: 8 c.c.

FORMALISED LUBRICANT

Tragacanth	30.0 gm.
Boric acid	15.0 gm.
Solution of formaldehyde ..	4.0 c.c.
Methyl salicylate	0.3 c.c.
Oil of rose geranium	0.2 c.c.
Alcohol (95 per cent.)	120.0 c.c.
Distilled water	to 1,000.0 c.c.

Prepare a mucilage of the tragacanth with 750 c.c. of water in which the boric acid has previously been dissolved. Then slowly add the solution of the oils in the alcohol to the mucilage, shaking after each addition. Lastly, add the formaldehyde, and sufficient water to make 1,000 c.c.

This preparation is non-greasy, non-irritating, smooth and of uniform consistence. It is used in hospitals to lubricate surgical instruments, catheters, sounds, and also the hands to facilitate the putting on and removal of rubber gloves.

CHONDRUS LUBRICANT

Irish moss	30 gm.
Phenol	2 gm.
Distilled water	to 1,000 c.c.

Wash the Irish moss with cold water, then place it in a double boiler and heat it with 800 c.c. of water for half an hour. Strain through absorbent lint. Add the phenol, and water to make 1,000 c.c. This forms a thin lubricating liquid, which is best dispensed in jars.

A thicker lubricant may be made by evaporating the strained liquid about one-third, and then adding the phenol. This is dispensed in collapsible tubes.

GLYCERIN LUBRICANT

Tragacanth, powdered ..	15 gm.
Liquefied phenol	20 c.c.
Alcohol (95 per cent.) ..	40 c.c.
Distilled water	600 c.c.
Glycerin	to 1,000 gm.

Agitate the tragacanth in a wide-mouth bottle with the alcohol, add the distilled water and set aside overnight. Then add the liquefied phenol and sufficient glycerin to make 1,000 gm. If necessary, sterilise.

Note.—This preparation has the consistence of a thick liquid. When intended for collapsible tubes, it should be made into a paste by increasing the amount of tragacanth to 25 gm.

STRAUS' LUBRICANT

Mercuric oxycyanide	1 gm.
Tragacanth, powdered ..	16 gm.
Distilled water	500 c.c.
Glycerin	to 1,000 gm.

Triturate the powdered tragacanth with 490 c.c. of distilled water, add the glycerin and then sterilise in an autoclave. After sterilisation, add the mercuric oxycyanide dissolved in 10 c.c. of water.

EMULSION OF BENZYL BENZOATE

Benzyl benzoate (20 per cent. alcoholic solution) ..	6 c.c.
Cum acacia, in fine powder	3 gm.
Compound tincture of cardamom (U.S.P. X) ..	75 c.c.
Aromatic syrup of eriodictyon (N.F. V)	to 150 c.c.

Incorporate the benzyl benzoate into a heavy mucilage made by triturating

the gum acacia with a few drops of the syrup. Continue the trituration with the addition of all of the syrup. Finally, add the compound tincture of cardamom.
Dose: 8 c.c.

GIBSON'S LINIMENT

Oil of anise	8 c.c.
Oil of cedar leaf	8 c.c.
Oil of sassafras	8 c.c.
Oil of hemlock	8 c.c.
Chloroform	45 c.c.
Tincture of capsicum (1 in 10)	60 c.c.
Spirit of camphor	60 c.c.
Spirit of ammonia	60 c.c.
Alcohol (95 per cent.)	to 1,000 c.c.

French Army Formulas.—The following formulas figure in the new edition of the "Formulaire Pharmaceutique du Service de Santé de l'Armée":—

BISMUTH AND MAGNESIA POWDER (POUDRE DE PATTERSON)

Bismuth subnitrate	50 gm.
Light magnesia	50 gm.
Sugar, in powder	100 gm.
Oil of peppermint	1 gm.

DEPILATORY PASTE

Sodium sulphide	3 gm.
Calcium oxide	3 gm.
Starch	6 gm.

Mix, and add sufficient water to produce a soft paste.

INFUSION OF DIGITALIS

Digitalis leaves, in coarse powder	amount prescribed
Calcium carbonate	0.01 gm.
Boiling distilled water ..	200 gm.

Maintain at a temperature of 70° C. for 30 minutes and filter.

MACERATION OF DIGITALIS

Digitalis leaves, powdered	amount prescribed
Calcium carbonate	0.01 gm.
Sugar	1 gm.
Distilled Water	120 gm.

Macerate for 24 hours and filter. This preparation is to be preferred for the administration of digitalis.

TOOTH PASTE

Calcium carbonate	10 gm.
Magnesium carbonate ..	4 gm.
Soap, in powder	4 gm.
Saccharin	0.1 gm.
Carmine	0.1 gm.
Oil of peppermint	5 drops

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Talbot's Solution.—J. E. Aiguier gives ("Lancet," 5621, 1161) the following formula for Talbot's solution:—Zinc iodide, 15 gm.; iodine crystals, 25 gm.; glycerin, 50 c.c.; water, 40 c.c.

Tasteless Extract of Cascara Sagrada.—An English patent, No. 335115, recently taken out has for its object the production of a tasteless extract of cascara sagrada for use as a laxative, by the elimination of the disagreeable flavour present in the ordinary extract of cascara sagrada. The invention consists in treating an aqueous extract of cascara sagrada with oxygen. In carrying it out the oxygen is produced in the extract by adding suitable substances thereto which will generate oxygen by chemical reaction. The process is preferably carried out by adding hydrogen peroxide to the extract in the presence of a reducing agent such as charcoal. It has been found that the process proceeds more rapidly if the extract be heated to a temperature of over 100° Fahr. or between approximately 120° and 130° Fahr. before the addition of the hydrogen peroxide. 100 lb. of cascara bark powder is extracted with water until exhausted. The resultant liquor is evaporated *in vacuo* until the volume of the extract measures approximately five gallons. It is then transferred to a large vessel, and, if necessary, heated to a temperature of above 100° Fahr., whereupon about one-fifth of its volume of a solution of hydrogen peroxide (of a percentage strength of about 30 per cent. by weight) and about 10 lb. of charcoal are added. Considerable evolution of oxygen takes place, and when the reaction is finished the charcoal is filtered off, leaving an extract of cascara which is practically tasteless. The usual sweetening, preserving and flavouring substances may be added, such as glycerin and liquorice, and the product made up with water to a volume of approximately ten gallons.

Sealing Ampoules.—A. B. Weinhausen ("Journal of the American Chemical Society," 53, 4, 1401) suggests a method of sealing substances in ampoules with inert gases. Usually, he states, substances susceptible to oxidation can be sealed in the vacuum of the mercury pump, but some substances (e.g., samples of vitamin-bearing extracts) cannot thus be sealed. In such cases, the substances must be sealed in with an inert gas. The author uses a method which is almost self-explanatory from the accompanying figure, and among several other advantages permits the use of the ordinary routine ampoule with a single opening. A short piece of rubber tubing is attached to the opening. The other end of this tubing is stoppered with a piece of glass rod, and (at A) is provided with a 1-cm. lengthwise slit, i.e., a Bunsen valve. In the figure, B represents a hollow pointed surgical needle, of adequate length and lumen. The needle is passed through one wall of the tubing and is pushed down into the ampoule almost to the surface of the substance. An inert gas (carbon dioxide or nitrogen) is conducted into the needle through tubing C, until all the air in the ampoule has been displaced and driven out through slit A. At this point the source of the inert gas is shut off, and the needle is then drawn up until its point is on a level with D. The ampoule is thereupon sealed by fusing off at E. The arrangement of Bunsen valve and needle can be used repeatedly. Owing to the fact that the point of the needle can be raised or lowered, it can be adjusted to approach the surface of the substance, no matter whether large or small amounts are being sealed up. This will frequently be found to be advantageous.

A New Ointment Base.—A new ointment base to replace stearic acid, and which is reported to have

many advantages over the latter, is the subject of a recent German patent, and has been introduced under the name of Tegin by the firm of Th. Goldschmidt A.-G., Essen, Germany. The new base is essentially a neutral organic compound, and is an ester of stearic acid, related in constitution to naturally occurring fats. On account of its composition, its action on the skin is very beneficial. It is a waxy substance of melting point 57°, and which easily forms emulsions with water. With ten times its weight of water at 70° a stable emulsion is formed, and at the boiling point of water an emulsion can be formed which does not "break." On allowing to cool an ointment of firm consistency is produced. The emulsion does not lose its firmness if fats, oils, glycerin or alcohol are added, and addition of vegetable mucilages, formaldehyde and titanium oxide can be made. Antiseptic ointments are easily made with sulphur and tar, and keep unchanged. Only electrolytes, as sodium chloride, or salicylic acid, and also borax, affect the keeping properties of the emulsions, but not alkalis, which often cause trouble with other ointment bases. The keeping properties of creams made with Tegin are particularly good against frost. Such creams can be exposed to temperatures as low as -10° without separation of the aqueous portion on thawing, which is generally the case with other stearin creams. The *modus operandi* for making an emulsion by means of this ointment base is very simple. The ingredients of the prescription are heated with the water, preferably distilled water, thoroughly stirred, and the temperature kept at slightly under boiling-point until all the Tegin is melted; stirring is continued until the mass is cold. Any perfume is added last. The creams or ointments have a consistency of lard, but if a stiffer product is required less water is to be added. Fats and oils of all descriptions can be made into ointments, and in the finished product the fat is in such a fine state of division that it can be well rubbed into the skin and leave no shininess. Emulsions formed with Tegin are oil-in-water emulsions, and the fat is in suspension as minute globules in an aqueous medium. This is similar to ordinary cream. An emulsion like this can be rubbed lightly on the skin, and the fat globules can easily be absorbed by minute cracks or pores of the epidermis. An advantage lies in the fact that many different substances can be incorporated with Tegin. A night cream can be produced similar in composition to a day cream without the disadvantage of excessive greasiness. A powder-cream can be made by incorporating titanium oxide. A cream against excessive perspiration is made by the addition of formaldehyde. These neutral Tegin creams are easily perfumed, and the perfume is stable. Stearin creams sometimes develop an unpleasant odour on keeping, especially if commercial stearin is used. Below are two specimen recipes for the preparation of two types of cream. These are given only as examples, and the components can be varied—other oils and fats can be substituted, and the glycerin and water content can be modified.

Non-greasy Cream.—Tegin, 11 per cent.; white wax, 2 per cent.; ceresine, 3 per cent.; soft paraffin, 4 per cent.; glycerin, 6 per cent.; water, 74 per cent.; perfume, q.s.

Greasy Night Cream.—Tegin, 12 per cent.; soft paraffin, 6 per cent.; lanolin, 4 per cent.; liquid paraffin, 6 per cent.; almond oil, 6 per cent.; glycerin, 3 per cent.; water, 63 per cent.; perfume q.s.

PHARMACEUTICAL CHEMISTRY

Bismuth Tartrates.—Continuing his electrometric studies (C. & D., March 28, p. 362) in the "Quarterly Journal of Pharmacy and Pharmacology" (4, 1, 1), C. Morton arrives at the following results:—(1) The existence of the four sparingly soluble tartrates of bismuth described by Corfield and Adams is confirmed. These compounds, however, are not insoluble complex acids, but true salts of the weak acid—very weak base

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type. Their properties are satisfactorily accounted for on the assumptions that (a) the 1:2.5 and 1:2 tartrates are acid salts $\text{Bi}_2(\text{C}_4\text{H}_4\text{O}_6)_3 \cdot 2\text{H}_2\text{C}_4\text{H}_4\text{O}_6$ and $\text{Bi}_2(\text{C}_4\text{H}_4\text{O}_6)_3 \cdot \text{H}_2\text{C}_4\text{H}_4\text{O}_6$ respectively; (b) the 1:1.5 compound is the normal tartrate, $\text{Bi}_2(\text{C}_4\text{H}_4\text{O}_6)_3$; and (c) the 1:1 tartrate is a basic salt, $\text{Bi}(\text{OH})\text{C}_4\text{H}_4\text{O}_6$. (2) The "bismuth and sodium tartrates" obtained by dissolving the insoluble tartrates in caustic alkali solutions are equilibrium mixtures of the soluble basic complex $2\text{Bi}(\text{OH})_3 \cdot \text{Bi}(\text{OH})\text{C}_4\text{H}_4\text{O}_6$ with sodium tartrate. There is no evidence of the existence of complex anions in the neutralised solutions. (3) In the absence of complex formation, the precipitation of basic salts of bismuth by the addition of alkalis commences at pH 1.7. Precipitation is delayed in the presence of glycerol, but eventually a highly basic precipitate is obtained. (4) It is suggested that the method described by Corfield and Adams for the preparation of the 1:1.5 or normal tartrate be adopted as standard, and that "bismuth and sodium tartrate" be obtained by neutralisation of the product, with subsequent evaporation. It is shown that methods which involve the use of alcohol or other precipitants are unsound.

Principles of Ammi Visnaga.—Karam Sama'an ("Quarterly Journal of Pharmacy and Pharmacology," 4, 1, 14) has investigated methods of isolation and properties of principles of *ammi visnaga*. The author summarises his results as follows:—From the genuine fruit six crystalline principles—visammin 0.31 per cent., visammidin 0.02 per cent., visnagin 0.02 per cent., visnaginidin 0.06 per cent., khellinin 0.38 per cent., khellidin 0.03 per cent., visnagan—a liquid oily principle 2.15 per cent., and fixed oil 19.4 per cent. were isolated. Visammin is in white shining crystalline hairs or needles with melting point 153°C . It is not an alkaloid, and there is no clear evidence that it is a glucoside; molecular formula $\text{C}_{11}\text{H}_{16}\text{O}_4$. Visammidin is in small, colourless, shining needles. It cracks at 147°C . and melts completely at 148°C . Visammidin is not an alkaloid and does not appear to be a glucoside. Visnagin is in opaque white porcelain-looking masses, which crack at 125°C . and melt completely at 132°C . It crystallises from water in long fine needles. Visnagin is a glucosidal principle. Visnaginidin is in shining needle crystals, which appear light and feathery, with a melting point 145°C . Visnaginidin is not an alkaloid and does not appear to be a glucoside. Khellinin crystallises from alcohol in white needle crystals, which collect together in dense groups. Khellinin is a glucoside, the sugar formed on hydrolysing it yields a definite osazone with phenylhydrazine. Empirical formula, $\text{C}_8\text{H}_8\text{O}_2$, melting point 170.5°C . Khellidin crystallises from alcohol in white short crystalline needles with melting point 167° to 168°C . Khellidin is not an alkaloid, and there is no clear evidence that it is a glucoside. Visnagan is an oily liquid of a dark olive colour. Its density is 1.012 at 25°C . It possesses reducing properties.

AGRICULTURAL CHEMISTRY

Toxicity of Derris Constituents.—W. M. Davidson ("Journal of Economic Entomology," 23, 877) places the relative toxicities of the insecticidal principles of derris root in the following order:—rotenone—deguelin—tephrosin—toxicarol. Rotenone and deguelin are more toxic than nicotine when tested upon aphids.

Organic Acids of Spinach, Broccoli and Lettuce.—E. K. Nelson and H. H. Mattern ("Journal of the American Chemical Society," 53, 5, 1909) have investigated the organic acids of spinach, broccoli and lettuce. Fresh spinach was found to contain 0.31 per cent. of oxalic acid; citric acid and a small quantity of malic acid were separated by the ester distillation method. Analysis of broccoli showed that the leaves and buds had materially the same composition and nutritive value. The predominating organic acid in broccoli was citric acid; it also contained *l*-malic acid and small

amounts of oxalic and succinic acids. The proportion of citric and malic acids was 3:2. The organic acids of lettuce were found to be oxalic acid, 0.011 per cent., *l*-malic acid, about 0.065 per cent., and citric acid about 0.048 per cent.

Rotenone Decomposition in Solution has been investigated by H. A. Jones ("Industrial and Engineering Chemistry," 23, 387), who states that the use of rotenone as an insecticide may soon be on a commercial basis. Of solvents in which rotenone is completely soluble benzene showed least decomposition. Change is accompanied by alteration in optical rotation. Pyridine solutions were found to decompose most rapidly, while chloroform and ethylene dichloride solutions darken slowly for the first few days, but lose strength rapidly thereafter. Acetone, diacetone alcohol, and dichlorobenzene solutions decompose comparatively slowly. It is recommended that rotenone solution should be freshly made, the substance not keeping for long periods. Acetone may be used when a water-soluble solvent is desired.

Relative Toxicities of "Open" and "Closed" Insect Flowers.—J. C. F. Fryer and C. T. Gimmingham, in an article upon pyrethrum flowers as an insecticide and their cultivation in England ("Nature," 127, 573), refute the established convention that fully opened insect flowers possess less insecticidal value than closed or half-opened flowers. A detailed investigation by F. Tattersfield shows that the percentage of pyrethrins present increases up to the stage at which the flowers are fully open. This point is of great practical importance, since the yield both of flowers and of active principles obtained per unit area increases markedly with increasing maturity. The results of cultivation in England justify the continuation of the experiments, especially as pyrethrin contents of from 1.5 to 2 per cent. were not uncommon, compared with 0.5 in Japanese flowers. The possibility of evolving an improved strain is under consideration, since individual plants exhibit wide variations. It is added that kerosene extracts of insect flowers are widely sold as fly-sprays, and that these are stable for considerable periods when made with a non-alkaline emulsifier. Alkali and soap preparations lose strength owing to alkali accelerating hydrolysis of pyrethrins.

ANALYTICAL CHEMISTRY

Improved Hehner Test for Formaldehyde.—C. C. Fulton ("Industrial and Engineering Chemistry," Analytical Edition, 3, 199) states that the Hehner test for formaldehyde in milk can be improved by using bromine as an oxidising agent, the sensitivity being one part of formaldehyde in 1,000,000 of milk. Two methods of testing are proposed, the first being the usual zone reaction modified as follows:—Dilute 5 c.c. of concentrated sulphuric acid with 1 c.c. of water, and put 3 c.c. of this diluted acid in a test-tube. Drop in a small crystal of potassium bromide. Shake, then overlay at once with 1 c.c. or a little more of the milk to be tested. A violet zone quickly develops if formaldehyde is present.

BIOLOGICAL CHEMISTRY

Molecular Weight of Insulin.—T. Svedberg ("Nature," 127, 438) finds by his method of sedimentation in centrifugal fields a mean value of 35,100 for the molecular weight of insulin. Within the limits of experimental error this is the same as that for egg albumin (34,500) and Bence Jones protein (35,000). It would seem that insulin belongs to this class of protein, which makes it improbable that the synthesis of insulin will ever become possible.

Measurements of Vitamin A by biochemical, chemical and physical methods is the subject of correlated research by K. H. Coward, K. M. Key, B. Morgan, F. Dyer and R. A. Morton, reported at a Biochemical

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Society meeting on May 16 ("Chemistry and Industry," 50, 440). The following comparisons have a relatively high degree of accuracy owing to the large number of animals used, the probable error in most determinations being less than 10 per cent.:—(1) Good agreement was found between biological value and blue (Lovibond) value of colour test upon unsaponifiable fraction of oil. (2) Good agreement occurred between biological assay and intensity of the 328 $\mu\mu$ (ultra-violet absorption) band of the oil. (3) Good agreement resulted between biological and colour test values measuring latter by intensity of 572 $\mu\mu$ band of oil subjected to antimony trichloride test. There was much less satisfactory agreement between biological value and intensity of absorption band in blue at 606 $\mu\mu$ with antimony trichloride (due to chromogen which is not vitamin A, though associated with and possibly related thereto). The agreement between biological value and direct antimony trichloride test of oil (in Lovibond blue units) was poor.

Characterisation of Vitamin A.—M. Heilbron and R. A. Morton ("Chemistry and Industry," 50, 1831) are of opinion that the most promising criterion for vitamin A will be a colourless or almost colourless substance with an absorption band absorbing maximally at 320-330 $\mu\mu$ and producing a blue colour with antimony chloride having a sharp absorption band at about 583 $\mu\mu$. The absorption intensities for both bands should be approximately the same for equal weights of vitamin, this eliminating the 606 $\mu\mu$ chromogen of the antimony chloride colour test, which is a separate entity. The above investigators and A. E. Gillam reported at a recent meeting of the Biochemical Society ("Chemistry and Industry," 50, 441) that with fresh liver oils the antimony chloride colour test for vitamin A produces a blue solution in which a 572- $\mu\mu$ maximum (corresponding to 583 $\mu\mu$ in vitamin A concentrates) preponderates over the usual maximum at 606 $\mu\mu$. The latter (normal) band is due to a chromogen formed by ageing. Artificial ageing occurs on treating the fresh oils with hydrogen peroxide or benzoyl peroxide, when a threefold or fourfold increase in absorption at 606 $\mu\mu$ is effected without appreciable change of absorption at 572 $\mu\mu$. In concentrates of vitamin A giving higher chromogen values than expected from biological assays and ultra-violet absorption, there has probably been oxidation of the 606 $\mu\mu$ chromogen precursor. In extreme cases the parallel between the 606 $\mu\mu$ (colour test) band and the 328 $\mu\mu$ (absorption) band differed by 200 per cent. compared with an estimated experimental error of 10 per cent. It is concluded that the matching of blue colours of antimony chloride test with Lovibond glasses is theoretically unsound, though it may act as a rough guide. On the other hand, the relative proportions of the two (572 $\mu\mu$ and 606 $\mu\mu$) chromogens do not exhibit sufficiently wide variations to invalidate the general usefulness of the colour test.

BACTERIOLOGY

Determination of Antiseptic Values.—A. W. Allen and I. S. Wright point out, in the course of a lengthy monograph ("Journal of the American Medical Association," 96, 12, 920), that in a comparative analysis of the efficacy of antiseptics there are many factors, theoretical as well as practical, to be considered. Of prime importance is the resistance of the different bacteria to the killing action of the preparation in a dilution suitable for clinical use. One antiseptic preparation may kill *B. typhosus* in high dilution and be totally innocuous to staphylococci in the same concentration, as determined by the Rideal-Walker or the Hygienic Laboratory methods; and the reverse may be true. Such information, in terms of the phenol coefficient describing the efficiency of the antiseptic, is not strictly in keeping with clinical results. Hydrogen peroxide, for instance, readily killed *Bacillus typhosus*, spared *Bacillus subtilis*, was moderately efficient in inhibiting *Bacillus pyocyaneus*, and was a slightly better bacteriostatic agent for

Staphylococcus aureus. The test adopted by the authors is based on that of Himebaugh, first devised in 1924 and since modified. The technique as now used is given in the monograph. The methods advocated for a complete survey of the value of an antiseptic are as follows:—(a) The phenol coefficient method devised by Reddish. This will weed out many worthless preparations and will offer a standard of comparison with former products. (b) The agar cup plate method of Himebaugh. This method demonstrates the penetrating powers of an antiseptic and its activity in the presence of blood serum. (c) The massive infection method described by the authors. This determines the activity of the antiseptic in the presence of massive infection. It is added that the testing of antiseptics by means of tissue culture and animal experimentation should be added as soon as sufficiently accurate standardised methods are available.

DENTISTRY

Zeolite Tooth Powder.—A recent patent, No. 332142, relates to zeolite tooth powder consisting of powdered zeolite in addition to the materials generally used in tooth powders, and has for its object to provide a tooth powder effective in maintaining a healthy condition in the mouth by reason of the facts that the deposit of calcium salt near the base of the teeth is prevented. In preparing the tooth powder according to the invention the ingredients are, e.g., preferably used in the following proportions, namely, four hundred parts of zeolite, three hundred parts of precipitated calcium carbonate, three hundred parts of magnesium carbonate, seven parts of oil of peppermint and four parts of an aromatic.

Acid Tooth Pastes with Colloidal Ingredients.—D.R.P. 503626 is for the manufacture of tooth pastes containing colloidal substances. A colloidal protein, as β -glutin, is used in admixture with polishing agents made of inorganic colloids, or acid salts, e.g., potassium tartrate. One part of gelatin is heated with 5 parts water and 0.03 part citric acid, and after about six-seven hours is converted into non-coagulating β -glutin. Three parts of glycerin are added and the water evaporated. This mass is made into a paste as follows:—To 100 gm. β -glutin mass are added 0.04 gm. gum tragacanth, 50 gm. silica gel (12 per cent. Si O₂), 150 gm. potassium bitartrate, 0.7 gm. essential oil. This mixture is made into a paste by colloidal grinding.

Studies in Electro-Sterilisation.—Grossman and Appleton, in "The Dental Cosmos," February 1931, have attempted to determine the theoretical and practical value of electro-sterilisation. The problems undertaken for study were: (1) Does the electrolysis of a chemical in solution increase its antibacterial value? (2) Should the positive or the negative electrode be in contact with the chemical solution in order to obtain the greater antibacterial effect? (3) Which chemical solution will exert the greatest degree of antibacterial action compatible with the demands of periapical tissue? (4) Is the antibacterial effect obtained from electro-sterilisation due to (a) change in pH of the culture medium compatible with bacterial growth, or (b) due to the action of the electrolysed chemical? (5) Is the area free of bacterial colonies indicative of a bacteriostatic or bactericidal effect? (6) What physico-chemical changes occur in the electrolyte during electrolysis? The two questions forming the centre theme of the work are: (1) In practice which electrolyte should be used? (2) Shall the positive or the negative pole be employed in the root canal of the tooth? The antibacterial effect of several solutions advocated for use in the treatment of periapical infection by electro-sterilisation was determined *in vitro*. Oral bacteria and a clinically tolerated dosage of current (thirty milliampere-minutes) were used; a standardised technique was developed and followed. The results of this study are as follows: (1) Greater antibacterial effect was uniformly obtained from an

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electrolysed chemical solution than from the same solution without electrolysis. (2) The antibacterial effect was always distinctly greater at the positive pole. (3) Zinc iodide has a greater antibacterial action than potassium iodide. (4) Some fifty electrolysed chemical solutions were tested for their antibacterial action. The one showing the greatest antibacterial effect compatible with tissue tolerance is a solution of zinc iodide M/1 with iodine 0.1 M. This solution is recommended for clinical use in electro-sterilisation of root canals. (5) Several chemical solutions were examined for their irritant action on the exposed subepithelial tissue of a rabbit. These solutions were electrolysed for about thirty milliampere-minutes. Observations extending over a sufficiently long period of time show that a solution of zinc iodide M/1 with iodine 0.1 M has no greater irritant action than an electrolysed solution of sodium chloride (0.85 per cent.). (6) The zone of sterility is not due to a change in the degree of acidity of the culture medium effected by the electrolytic process, but is due directly to the action of the electrolysed chemical. (7) The bacteriologic effect obtained by electro-sterilisation is bactericidal. (8) A description of the physico-chemical changes in the electrolytic process is advanced.

ESSENTIAL OILS

Terpenes of Japanese Peppermint Oil.—K. J. Duncan and W. F. Short ("Chemistry and Industry," 50, 23, 198) have isolated α -pinene from Japanese peppermint oil residues, the only terpene identified in the oil hitherto being *l*-limonene. Investigation of the hydrocarbon fractions from a large quantity of peppermint oil discloses that limonene and pinene are the principal terpenes present and that the sesquiterpene fraction consists of caryophyllene and a very small amount of unidentified dextrarotatory sesquiterpene.

Turpentine from Pinus Merkusii.—*Pinus Merkusii* Jungh. et de Vriese, sometimes referred to as the "Tenasserim Pine," is the most tropical of all pines and is of wide distribution, occurring in various parts of the Eastern Tropics, states the Kew "Bulletin of Miscellaneous Information," 1931, 4, 222. The most extensive areas of the species are perhaps to be found in Burma occupying low hills and spurs. It has long been known that the species produces a good-quality resin, but it has not been exploited to any extent in the past as a source of turpentine. This has probably been due to the inaccessibility of the forests. During the past few years, however, special interest has been taken in the production of turpentine from this species on a commercial scale in Sumatra, and towards the end of 1928 an up-to-date Government factory for the production of turpentine was established in the district of Atjeh. In tapping the "quarre" system as employed in the Landes of France has been adopted. The product from the factory was found to be of good quality and superior to former samples from Sumatra. A study of the composition and physical constants of the oil made at the Koloniaal Instituut, Amsterdam, revealed the fact that it complied in every respect with the demands of the Dutch Pharmacopœia for oleum terebinthinæ. A notable feature was the low refractive index compared with the French and American oils. This is attributed to the high percentage of α -pinene, 85-90 per cent. as against 60-70 per cent. for French and American oils. This feature is claimed to enhance rather than diminish the value of the Sumatra oil.

Essential Oils of Geijera.—Penfold ("Journal and Proceedings, Royal Society of New South Wales," lxiv, 264) has examined the essential oils of three species of *Geijera*, and has isolated an interesting new hydrocarbon, which is being investigated by Professor Simonsen. These plants are members of the N.O. Rutaceæ. The leaves and terminal branchlets of *Geijera parviflora*, var. A, from New South Wales yielded an

average of 0.34 per cent. of essential oil, which contains *d*- α -pinene, camphene, limonene and dipentene (80 per cent.), cineol, sesquiterpenes and phloracetophenone dimethyl ether. About twelve samples were examined, and were found to have the following characters:—Yield of oil, 0.17 to 0.53 per cent.; s.g., 0.8676 to 0.8942; optical rotation, +22.8° to +50.85°; refractive index, 1.4721 to 1.4886; ester value, 1.8 to 15.2; ester value after acetylation, 14.5 to 48.9. The sesquiterpenes were not isolated in a state of sufficient purity for full investigation. The leaves of *Geijera parviflora* from Queensland yielded an essential oil of very different characters, containing linalol, a new hydrocarbon having, probably, the formula $C_{11}H_{18}$ (50 cent.), sesquiterpenes, azulene and caprylic acid, with certain variations according to locality. The Queensland oils had the following characters:—Yield of oil, 0.4 to 1.18 per cent.; s.g., 0.9070 to 0.9294; optical rotation, -6° to +16.4°; ester value, 4.5 to 15.1; ester value after acetylation, 71.2 to 111.5; refractive index, 1.4987 to 1.5134. From the Queensland oil there was isolated a new hydrocarbon, which boiled at 198-199° at 774 mm., and had a specific gravity 0.8788; optical rotation 0°; and refractive index 1.4914. It appears to have the formula $C_{11}H_{18}$, or, possibly $C_{12}H_{20}$. *Geijera muellii* yielded an essential oil having a specific gravity 0.9132; optical rotation +14.8°; refractive index 1.4920; ester value 12.9; and ester value after acetylation 57. It was found to contain *d*- α -pinene, *d*-camphene, cadinine, and a sesquiterpene alcohol. Samples of the oil of *Geijera salicifolia* distilled from material obtained from Queensland and from New South Wales were examined, but no constituent could be identified in any of the oils, except phloracetophenone dimethyl ether in the oil from New South Wales. The oils had the following characters:—Yield of oil, 0.02 to 1.27 per cent.; melting point, 82°; s.g., 0.8808 to 0.9344; optical rotation, -4.8° to +16°; refractive index, 1.4839 to 1.5006; ester value, 8.7 to 32; ester value after acetylation, 43.7 to 134.3.

Essential Oils of the Genus Metrosideros.—Roy Gardner ("Journal of the Society of Chemical Industry," 1931, 141 r) has examined the essential oils of several species of this plant, which belongs to the family Myrtaceæ. The essential oils from a number of the species fall into two groups, which are here shown tabulated for comparison:—

A.—Oils containing much sesquiterpene with some sesquiterpene alcohol:—

	S.g. at 20°	Ref. index
(1) <i>M. scandens</i>	0.922	1.5042
<i>M. scandens</i>	0.924	1.5060
(2) <i>M. Parkinsonii</i>	0.952	1.5110
(3) <i>M. diffusa</i>	0.944	1.5092
(4) <i>M. Colensoi</i>	0.924	1.5040
(5) <i>M. exelsa</i>	0.939	1.5020
<i>M. exelsa</i>	0.933	1.5030
(6) <i>M. Collina</i>	—	1.5035

B.—Oils containing notable quantities of terpenes and terpene alcohols (mainly as esters):—

	S.g. at 20°	Ref. index
(7) <i>M. umbellata</i>	0.887	1.4835
<i>M. umbellata</i>	0.8955	1.4840
<i>M. umbellata</i>	0.8977	1.4827
(8) <i>M. robusta</i>	0.899	1.4930
<i>M. robusta</i>	0.885	1.4915
(9) <i>M. perforata</i>	0.919	1.4885
<i>M. perforata</i>	0.919	1.4960

All the oils of class B contained at least 20 per cent. of terpenes. The terpenes were isolated by fractional distillation *in vacuo*, followed by fractionation at atmospheric pressure. The terpenes consisted in the main of limonene, and in the cases of *M. umbellata* and *M. perforata*, about 1 per cent. of inactive pinene was found. The alcohols present in these oils had a marked rose odour, and in the case of *M. umbellata* it was identified as citronellol, which with its esters was present to the extent of 8-12 per cent. The major portion of the oils of class A, and of the highest boiling

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fractions of those of class B, consisted of sesquiterpenes. After distillation over sodium the sesquiterpene had the following characters:—B.p., 131° – 135° at 15 mm.; s.g., 0.922 at 20° ; and ref. ind., 1.5040. The rotation varied greatly according to the species. It appears to be *laevo*-cadinine or a mixture of the two optical varieties. A surprising result was obtained from *M. scandens*; at least 95 per cent. of the oil is sesquiterpene of specific rotation -47° . The hydrochloride melted at 118° , and was dextro-rotatory.

MATERIA MEDICA

Indian Ephedras.—S. Krishna and T. P. Ghose have made a study (Government of India Chemistry Series, 16, II, pp. 30, with plates, 3s. 3d.) of ephedras from many localities in India, and have devised a method of assay. They find that *E. foliata* has no ephedrine, *E. intermedia* about 10 per cent., *E. Gerardiana* and *E. nebrodensis* each about 70 per cent. of the total alkaloids. The richest samples of the ephedrine-containing species yielded between 2 and 3 per cent. of total alkaloids. The greater the annual rainfall the smaller is the alkaloidal content.

Extraction of Insulin.—P. G. Marshall and B. P. Wiesner ("Nature," 127, 630) outline the following technique for preparation of insulin based upon its quantitative precipitation with sulphosalicylic acid:—Pancreas, frozen immediately after removal from bullocks, is minced with about two-thirds of its weight of 20-per-cent. sulphosalicylic acid, and allowed to thaw out. After two hours the whole is filtered in a hydraulic press and the comparatively dry residue covered with acetone and left to dehydrate overnight in the cold. The almost water-free residue is extracted with acetone in a Soxhlet apparatus and the fat-free residue dried rapidly in a current of air. The active principle is extracted from the powdered material with 75-per-cent. alcohol acidified with about 0.5 per cent. of hydrochloric acid. The aqueous-alcoholic solution of insulin hydrochloride is concentrated in the usual way and the product precipitated with acetone, the yield being about 2 gm. per kilogram of minced pancreas.

Podophyllum Rhizome.—T. E. Wallis and S. Goldberg ("Quarterly Journal of Pharmacy and Pharmacology," 4, 1, 28) have investigated the American and Indian varieties of podophyllum. The authors give details of the "Dutch" process of estimating the fibre present in crude drugs, modified so as to render it applicable to quantitative work and reliable for yielding constant results. The crude fibre obtainable from American podophyllum by the modified "Dutch" process, state the authors, is 5.35 per cent. Using the process of the Ministry of Agriculture, the crude fibre is 7.5 per cent. The quantities of crude fibre from Indian podophyllum obtained by the two processes are, respectively, 7.2 per cent. and 10.5 per cent. If the drug is subjected to a preliminary exhaustion with 90-per-cent. alcohol, the crude fibre obtained by the "Dutch" process, calculated on the moisture-free drug, is for American podophyllum 5.3 per cent. and for Indian podophyllum 6.7 per cent. A commercial sample of powdered American podophyllum gave by the modified "Dutch" process a crude fibre of 8.7 per cent., and is shown to contain an admixture of both Indian podophyllum and of guaiacum wood. A good reagent for the identification and distinction of the resins of the American and Indian drugs is a 5-per-cent. aqueous solution of copper acetate, which gives a bright green coloration with an alcoholic solution of the resin of *Podophyllum peltatum*, Linn., but yields a brown precipitate with an alcoholic solution of the resin of *Podophyllum Emodi*, Wallich.

MEDICINE

Poisoning by Application of Surgical Spirit.—Writing to "The British Medical Journal" (3665, 539), V. C. James reports that a boy, aged eight, after having his

legs shaved and covered with a towel wrung out in surgical spirit, as preparation for the removal of enlarged bursæ, vomited and became unconscious. Specimens of the boy's vomit and urine contained alcohol. Toxic symptoms lasted for several hours.

Baths for Deafness.—J. Adam gives details ("British Medical Journal," 3666, 621) of seven cases in which medicated baths have been tried for deafness. Hot baths each containing 1 lb. of commercial Epsom salts were ordered; immersion from ten to fifteen minutes was advised at bedtime every second night for a week, once during the following week, and then once a fortnight. Success is more probable, the author concludes, in the less chronic cases and in acute cases.

Calcium Chloride in Peristaltic Pain.—Striking results have been obtained by W. Bauer, W. T. Salter and J. C. Aub ("Journal of the American Medical Association," 96, 15, 1216) with the very slow intravenous administration of 20 c.c. of a sterile solution (5 per cent.) of calcium chloride in the severe pain of colic caused by lead, or ureteral or biliary stone. The relief afforded is more rapid and more constant than by other forms of treatment the authors have employed. The almost instantaneous relief of lead colic following the intravenous use of calcium chloride is too rapid a phenomenon to be explained on the basis of suddenly increasing the skeletal storage of lead and calcium.

Intravenous Use of Liver Extract.—In the early stages of the chemical fractionation of liver, Cohn, Minot and their associates produced an active extract, the so-called fraction G, which could be readily prepared. But it was not until Cohn was able to prepare fractions which gave no specific protein reactions and had no reducing effect on the blood pressure of animals that it was considered possible to administer the active principle intravenously to patients. W. B. Castle and F. H. L. Taylor record ("Journal of the American Medical Association," 96, 15, 1198) the results of numerous observations on the action of fraction G when intravenously administered to patients suffering from pernicious anaemia. Maximal reticulocyte responses were obtained from a single intravenous injection of the amount of extract derived from 100 gm. of liver. One of the patients so treated had failed to respond satisfactorily to the previous oral administration of a similar extract derived from 3,000 gm. of liver given within a period of ten days. The possible significance of these observations is suggested.

Insulin in Malnutrition.—R. D. Metz contributes to the "Journal of the American Medical Association" (96, 18, 1,456), a preliminary report on the use of insulin for non-diabetic patients. The author states that it does not produce deleterious effects on the animal economy, and it can be used indefinitely without its value being impaired by unforeseen occurrences. A considerable part of the monograph is devoted to a discussion of the action of insulin in cases of malnutrition. It is given subcutaneously, and there is at present no standardised dosage. Among the beneficial effects of this treatment, the gain in weight is of primary importance, although the general improvement frequently surpasses it. This seems to be the result of a readjusted metabolism. Whether this is brought about in the constitutionally asthenic person purely through an endocrine readjustment is, as yet, speculative. Nevertheless, its general effects are quite obvious. With it, the bony irregularities are rounded out by an increase in the subcutaneous tissue. The "lean and hungry look" gives way to an expression full and pleasant. The nervous system is more stable, the mentality brighter, and the outlook on life more cheerful.

Potassium Chlorate Poisoning.—Analytical data in a case of fatal poisoning by potassium chlorate are recorded by S. Ansbacher ("Journal of the American Medical Association," 96, 20, 1681). The patient had eaten the contents of a tube of a proprietary tooth-

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paste, corresponding, in the author's opinion, to 7.5 gm. of potassium chlorate. Subsequent investigation, however, rendered it probable that a larger quantity, probably more than 30 gm., had been taken. Spectroscopic examination of the blood showed methæmoglobin. Since potassium chlorate forms methæmoglobin in the body, the chlorate ion was tested for in the urine, alkali chlorates being rapidly eliminated by the kidney. On the addition of a drop of concentrated sulphuric acid to a few drops of urine, the colour and odour of chlorine or oxides of chlorine were recognised. Repeated with 5 c.c. of urine, heated, an explosion took place of sufficient violence to shatter the test-tube, a specific reaction for chlorine dioxide. The chlorides were determined by Volhard's method, and the total chlorine by the same method after reduction with ferrous sulphate. The chlorate concentration was equivalent to 2.6 per cent. of potassium chlorate in the urine.

Wood's Glass in Diagnosing Ringworm.—J. Kinnear has carried out investigations ("British Medical Journal," 3670, 791) on the diagnostic use of Wood's glass (named after Professor R. W. Wood of Johns Hopkins University) in ringworm and other skin affections. He reports that hairs infected by *Microsporon audouini* are brilliantly fluorescent in light filtered through Wood's glass. This fluorescence is characteristic and constant, and is coextensive with the infection. The diagnosis and estimation of cure of this form of ringworm is easy and certain by this means. Hairs infected by other forms of ringworm are, in the author's opinion, incapable of detection by this method with any certainty. Hairs affected by favus give a faint fluorescence. Wood's glass is of value in aiding the diagnosis of this condition. Almost any scaly condition of the skin will give a fluorescence; attention should therefore be paid only to the presence or absence of fluorescing hairs in the detection of ringworm of the scalp. The author has not been able to arrive at any useful conclusion in the differentiation of other dermatoses by this method. Any ordinary white light may serve as a source of illumination, provided it is of sufficient intensity, and ordinary glass does not impede the necessary rays.

Ringworm of the Feet.—W. L. Gould discusses, in the "Journal of the American Medical Association" (96, 16, 1,300), the complaint known as epidermomycosis, epidermophytosis, trichophyton interdigitale, toe itch, toe scald, fungus foot, athletic foot, Hongkong foot or Shanghai foot. There is apparently no specific medicament for this condition. The remedies tried have been numerous. After an extensive experience of the ailment in a school, foot-baths containing from 10 to 15 per cent. of sodium thiosulphate were installed between the locker and the shower rooms. Each pupil on leaving the shower was requested to immerse the feet in this chemical bath on the way to the locker. In so doing, the solution was well spattered over the locker room floor, so that from the time the pupil left the shower until the time of dressing, the feet were constantly in contact with this thiosulphate solution. The sulphite solution was found efficient as low as 3 per cent., so that starting with from 10 to 15 per cent., plenty of allowance made for the dripping into the bath of plain water. The bath is inconvenient at times, however, and a 20-per-cent. powder of sodium thiosulphate in boric acid has been tried with much success on feet, to the socks and inside the shoes. A light dusting is all that is necessary. It has been found ideal at times to use the bath and afterwards the powder locally.

Reagent for Demonstrating Fungi in Skin and Hair.—T. Cornbleet has evolved the following technique ("Journal of the American Medical Association," 95, 23, 1743) for examining skin and hair for the presence of fungi. A strong solution of sodium sulphide in water is made, and equal parts of this solution and of alcohol

(95 per cent.) are mixed. The precipitate first formed is redissolved by adding a sufficiency of water drop by drop. The reagent should be kept in a glass-stoppered bottle. If it is not inconvenient, the scales and hair should first be soaked in ether to remove their surface oil. Otherwise they may be placed directly on a glass slide and covered with a cover slip. Several drops of the reagent are then run beneath the cover slip. Almost at once the keratin structures begin to swell and flatten out after they have made contact with the reagent. In a minute or two the cover slip may be gently pressed down to hasten the clearing process. From five to ten minutes is sufficient to produce enough clearing for a good examination. Through the microscope the field shows up clearly and the vegetable structures are seen easily and distinctly, as much thicker strands and many more of them than when fixed alkalis are used are seen. The walls of the fungi appear as brilliant blue or green borders that enclose delicately reticulated bands of internal structure.

Treatment of Carbolic Acid Poisoning.—Writing to "The British Medical Journal" (3667, 686) on the primary treatment of carbolic acid poisoning, W. A. Bowdler controverts a statement in a previous issue (3665, 581) to the effect that liquid paraffin should be administered when the poisoning is internal. He points out that the solubility of carbolic acid in B.P. liquid paraffin is slight, and that the paraffin cannot be expected to form a protecting layer over the surfaces of the stomach and small intestine in the presence of other liquids. If carbolic has been swallowed we may eliminate much of it by emesis, or by the wash-out tube, in the more fortunate cases; and we can hinder absorption and encourage secretion by magnesium sulphate; but nothing which we can administer reasonably will remove the poison from moist tissue already penetrated, however superficially. Mr. Bowdler, who has had experience of manufacturing phenols, summarises his suggestions thus:—(1) For external application in carbolic acid poisoning persistent mopping with warm castor oil. The oil is rather viscous normally, and its solvent powers rise rapidly with the temperature. (2) If castor oil or other suitable oils or fats are not available within a few minutes, do not hesitate to use plenty of soap and a little warm water, applying castor oil dressings later. (3) If the poison has been swallowed, the wash-out tube, with plain water, should be used, unless strongly contraindicated. (4) Give full doses of magnesium sulphate and sodium sulphate together, whether the poison has been applied externally or has been swallowed.

OPTICS

Tests of Visual Acuity.—H. Banister ("Refractionist," June 1, 1931) states that the "difficulty" of the various letters is an individual affair. A letter which one person reads easily may be misread by another one who has equally good eyesight. In consequence of this, the selection of test letters according to their "difficulty" is not satisfactory. It is not scientific. The best letters to use as test objects are those which have the same general outline. When the retinal image lacks detail the patient will fail to discriminate the one letter from the other. Suitable letters are CDGOQ and HKMNW. Another advantage of these letters is that they give a sharper division between what can and cannot be read. They, therefore, make assessment of acuity more precise.

Non-luetic Argyll Robertson Pupil.—R. Foster Moore at the annual congress of the Ophthalmological Society ("Lancet," May 2, 1931), reported on eight additional cases since his paper on the subject in 1924. Twelve of the total fifteen cases were in females, so the condition could be said to be commoner in the female than in the male sex. Some might be congenital, though in only one case was it suggested that the condition had

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been present ever since birth. The ages of onset given ranged from birth to 42. In fourteen cases the fundi were examined with the aid of a mydriatic, but in none was any important abnormality discovered. The visual acuity did not seem to be affected; in fourteen cases it was 6/6 in each eye after correction. The condition was usually unilateral and the pupil might be described as semi-dilated. It was practically inactive to the sight stimulus, whether direct or consensual. Contraction occurred with convergence, but the rate of such contraction varied much, as also did its completeness. There was always a slow relaxation. Accommodation was not paralysed. In none of this series was there a history of syphilis, or discovered syphilitic lesion. In two cases there was a slight drooping of the upper lid.

Vision in Games.—Sir David Munro, in a paper read at the annual congress of the Ophthalmological Society ("Lancet," May 2, 1931) said the visual factors were not the only ones concerned in proficiency in games; good muscular co-ordination and kinæsthetic sense were as necessary as good visual judgment. Instructors should not attempt to train on the motor side until the perceptive side had been investigated, the latter to include the causes of faulty visual judgment. There was a tendency to instruct to a set pattern, apart from personal peculiarity. He classified sports and games into: (1) those in which the player had to follow with both eyes the flight of an approaching or receding ball and to judge its pace; (2) games, such as golf and billiards, in which the ball had not to be followed, but a stroke had to be timed and executed with delicacy; (3) shooting sports, in which the flight of an approaching or receding object had to be followed with both eyes, and accurate timing carried out; (4) the monocular sport of shooting with a rifle at a target; (5) rifle shooting at a moving target; (6) motoring and flying, in which the judgment required was that of one's own pace. The chief visual judgments to be made in games concerned pace, space and place. There was a good deal of evidence that imperfect ocular balance was important in causing deficient following of a moving object binocularly, so causing erroneous judgment of distance. The speaker concluded his paper by saying that if he were intending to specialise as a teacher of ball games he would rely on his amblyoscope and stereoscopic charts for correcting the chief sources of visual error.

Treatment of Detached Retina.—C. Shapland, at the recent congress of the Ophthalmological Society ("Lancet," May 2, 1931), contributed a paper on "A Hundred Cases of Retinal Detachment Treated by Cautery Puncture." He said that in December 1929 Sir William Lister carried out the first operation in Moorfields Eye Hospital according to Gonin's method for retinal detachment, and since then 100 cases had been so treated. This operation presupposed that a hole in the retina had been discovered, and an effort was made to occlude it by a cautery puncture. Retinal holes could be put into five groups. The commonest site for a retinal hole was the periphery of the temporal half of the globe. Disinsertions showed a marked preference for the emmetropes; 66 per cent. of the rents were at the ora serrata, while they occurred in 25 per cent. of the low myopes, and only 9 per cent. of the high myopes. Forty of the 100 cases were discharged from the hospital cured, and 17 others showed improvement, either in visual acuity or the area of the field. The average age of the cases cured—both sexes—was 34½. The average duration of the detachment, from the time of onset of the visual symptoms in the affected eye to the date of admission to hospital for operation, was seven weeks, the longest duration after which a successful result was attained being twelve months, and the shortest seven days. In the aphakic group no successful result was obtained. The round-hole cases afforded the best prognosis, 53 per cent. of these being cured; disinsertion cases gave

49 per cent of cures. Of the forty primarily successful cases recurrence of the detachment took place in eleven, the interval varying between a week and eight months. In thirty of the total cases the restoration had remained *in situ*—for fifteen months in the earlier cases. Vitreous hæmorrhage at the seventh to tenth day after operation was the worst sequel when the Paquelin cautery was used, but after this was supplanted by the electric thermo-cautery this complication had been practically absent. There were four cases of fairly severe uveitis, two of traumatic cataract, and two of subretinal hæmorrhage. No eye in the series was lost through panophthalmitis.

PHARMACOLOGY

Action of Insulin.—F. O. Howitt, in a letter to "Nature" of May 16 (p. 743), deduces that there is no possibility of the action of insulin in removing dextrose from the blood being a stoichiometrical operation depending upon the presence of a number of certain active groups in the insulin molecule. It is shown that on the basis of one insulin unit being equivalent to 180 mgm. of dextrose, one molecule of insulin (mol. wt. 35,100) removes approximately 700,000 molecules of dextrose.

Comparative Efficiency of Hypnotics.—G. P. Grabfield has carried out a comparison ("Journal of the American Medical Association," 96, 22, 1865) of the efficiency of commonly used hypnotics. Regarding chloral hydrate as unity when given by a number instead of by its name, the following is the index of efficiency (half the doses recommended were given):—

Chemical group	Drug	Dose (gm.)	Given by name	Given by number	Both series
			Index of efficiency	Index of efficiency	Index of efficiency
Alkaloid	Codeine ..	0.015	0.91	0.81	0.86
	Chloralhydrate	0.150	0.95	1.00	0.97
Chloroform	Butyl-chloralhydrate	0.150	0.65	0.81	0.70
	Chlorbutanol	0.150	0.93	0.76	0.83
Barbituric Acid	Barbital ..	0.150	0.94	—	0.94
	Phenobarbital	0.050	0.74	0.51	0.69
Bromine	Carbromal ..	0.300	0.63	0.86	0.70
	Bromural ..	0.300	0.83	0.67	0.73
	Sabromin ..	0.300	0.95	—	0.95

[A few of the less-known substances are omitted from this table.—EDITOR.]

Pharmacology of Certain Phenol Esters.—A report by M. I. Smith, E. Elvove and W. H. Frazier on a pharmacological investigation arising out of the recent outbreak of peripheral multiple neuritis in the United States following the consumption of presumably adulterated fluid extract of ginger has been reprinted from the Public Health Reports (45, 42, 2509-24) of the U.S. Treasury Department. Various animals and birds were used in experiments with the following esters:—(1) Triphenyl phosphate, technical grade; (2) tri-ortho-cresyl phosphate, technical; (3) tri-ortho-cresyl phosphate, C.P.; (4) tri-para-cresyl phosphate, C.P. The evidence leaves no room for doubt that the phosphoric acid ester of ortho-cresol behaves differently from the other cresols, and that it is capable of producing specific paralysis of the motor nerves of the extremities in certain species of animals and under certain conditions more or less exactly the same as occurred recently in thousands of people. Evidence has been advanced to show that this specificity upon the motor nerves exhibited by the phosphoric acid ester of ortho-cresol is not shared by the similar esters of phenol or para-cresol. The authors are of opinion that they have found a relationship that does not appear to follow any known rule or law. This incident brings out the need of new facts to enlarge our knowledge of the principles that govern the relation of chemical structure to pharmacological action.

The Progress of Pharmacy and Allied Sciences

PHOTOGRAPHY

Colour Cinematography.—Considerable publicity has of late been given to the Spicer-Dufay process of colour cinematography. According to the "British Journal of Photography" (June 5, 1931), the specially prepared cellulose acetate film is first coated with a thin collodion containing a green dye. Then it is passed under a roller, which prints lines on it in greasy ink to the number of about 350 per linear inch, with an equal number of clear spaces of the same width between each pair of lines. From this operation it passes into a bleaching bath, which decolorises the green dye left exposed between the lines of greasy ink. Thence it goes into a bath of orange dye, which produces bands of orange between the lines of greasy ink which still cover the green bands. Next the film is passed into a series of tanks containing benzole, where the printing ink is brushed off, thus producing a mosaic consisting of alternating green and orange lines. The band of film is then again subjected to the application of a resist of lines in greasy ink, but printed at right angles. By a similar procedure the third colour element, blue-violet, is introduced into the pattern of the colour mosaic. The last step at this stage is to apply two protective coatings for the purpose of preventing any desensitising action of the filter colours on the sensitive emulsion which is afterwards put on. A panchromatic emulsion has been worked out specially for the process, namely, one containing grains of great sensitiveness and relatively large size, together with grains of extreme fineness and lesser sensitiveness. When the film is exposed the original negative image is obtained chiefly on the larger grains. After development the corresponding silver deposit is dissolved out and the positive image developed on the finer residual emulsion. It is stated that the filter absorptions adopted for the blue, green and orange elements in the colour mosaic possess a very much greater overlap than is commonly adopted for three-colour work. Nevertheless, the excellent colour rendering shows that this procedure, which, of course, makes for shorter exposures in the camera and brighter pictures on the screen, has not proved disadvantageous. For the duplication of the colour films a method of printing by optical projection has been worked out. The original colour film, in the course of its travel through a printing machine, is projected, picture by picture, on to a second similar film, moved in synchronism with it. In this process a lens is used of such focus and aperture that the silver image of the original film is focussed critically on the sensitive film used for the duplicate, whilst the coloured mosaic, although separated by a microscopic distance, is obtained slightly out of focus. Printing in this manner can be done at the standard rate of 800 pictures a minute.

Compensating Developers.—E. F. Flanders ("Amateur Photographer," June 3, 1931) points out that whilst modification of existing developers may suffice to give all that is required in the degree of softness, it may be found more desirable to employ a specially compounded developer, and such a developer would produce the image on the surface of the emulsion only from below, and whilst becoming exhausted quickly and hardening the top part of the plate or film, does not penetrate to any great extent. Great diminution of contrast of the image is possible by this procedure.

FOR ORDINARY PLATES

Pyrocatechin 1:10	...	...	...	35 min.
Sodium sulphite 1:10	...	...	...	8 min.
Caustic soda 1:10	...	...	...	20 min.
Water	...	...	...	4 oz.

FOR NON-HALATION PLATES

Pyrocatechin 1:10	...	...	...	70 min.
Sodium sulphite 1:10	...	...	...	20 min.
Sodium carbonate 1:10	...	...	...	3 dr.
Water	...	...	...	4 oz.

Further there is the glycin formula of Dr. Mankenberg. Differential exposures of 1:10,000 can be dealt with.

Glycin	...	...	...	88 gr.
Sodium sulphite (anhy.)	...	...	...	210 gr.
Potassium carbonate	...	...	...	1 oz.
Potassium bromide	...	...	...	35 gr.
Water	...	...	...	4 oz.

This is diluted with three to four parts of water for use.

Then there are two fine-grain developers which should be useful for development of hard-contrast working Leica films:

A. Metol	...	...	...	250 gr.
Sodium sulphite (crys.)	...	...	...	5½ oz.
Water	...	...	...	35 oz.

10 per cent. bromide as required.

B. Metol	...	...	...	31 gr.
Sodium sulphite (anhy.)	...	...	...	3½ oz.
Hydroquinone	...	...	...	77 gr.
Borax	...	...	...	30 gr.
Water	...	...	...	17-35 oz.

(Little or no bromide is needed.)

The developer (B) should be made up as follows: dissolve the metol in 200 c.c. water; in another 200 c.c. water the hydroquinone and 30 gm. of the sulphite are dissolved; next these are mixed and in a further 400 c.c. of water the rest of the sulphite and the borax are dissolved. After cooling, for the water should be quite hot (150° F.), the resulting solutions are mixed and made up to the 1,000 c.c.

VETERINARY MEDICINE

Santonin for Pigs.—H. Morris and J. A. Martin ("Journal of the American Veterinary Medical Association," April 1931) state that santonin, if properly administered, is an effective anthelmintic for the removal of adult ascarids in swine. Its efficiency depends to a large extent, not upon the amount given, but upon the method of administration and purgation. Santonin and calomel are ineffective, due to lack of proper purgation, but if followed in a few hours by a saline purgative the combination is highly efficient. Santonin alone, followed by a saline purgative, gives equal results. Large doses of the drug do not appear to have an irritating effect on the digestive tract.

The Nature of Louping-ill.—J. Russell Greig, A. Brownlee, D. R. Wilson and W. S. Gordon ("Veterinary Record," March 28, 1931) state that clinical and other evidence suggests that parturient hypocalcæmia is to be recognised as among the several diseased conditions confused with louping-ill in the field. The histopathology of louping-ill is represented by a meningo-encephalo-myelitis suggestive of that caused by a neurotropic virus. The causal factor of louping-ill has been found to be a filtrable virus. The disease can be produced in the mouse, and with much less certainty in the rat, by intracerebral inoculation, and can be retransmitted from these animals to the sheep. It was again found that infection could also be produced by intraspinal and subcutaneous inoculation, but failure to infect by ocular instillation and intra-ocular injection in a limited number of test animals is recorded. Sheep which withstood intra-nasal insufflation, intradermal and subcutaneous inoculation of infective material were protected against subsequent intracerebral inoculation of virus. Means whereby sheep may be protected against the natural disease are thus indicated. The immunity induced in experimental sheep has been found to possess a duration of at least eleven months. It was found that a febrile reaction can be experimentally induced in sheep by infesting them with ticks collected from infected pastures, and also by the serial inoculation of sheep with blood obtained from these tick-infested sheep; but the reaction obtained did not protect against the subsequent intracerebral inoculation of louping-ill virus.

Trade Notes

BATH ESSENCE.—H. Bronnley & Co., Ltd., Acton Vale, London, W.3, have sent us a specimen of bath essence, their newest line. The essence contains a high percentage of volatile oils of pleasing aroma (English fern), but it is entirely soluble in water, it leaves no deposit on the sides of the bath, nor does it stain the enamel. In describing it, Messrs. Bronnley state, "it is virtually a colloidal preparation which imparts a delightful fragrance to the water when from half to one teaspoonful is sprinkled into the bath. It is not claimed to be a water softener, and thus is eminently suitable for use in districts where the water is soft and where the use of bath salts is superfluous." The essence is packed in bottles with glass sprinkler top



with red composition screw caps, and is available in two sizes.

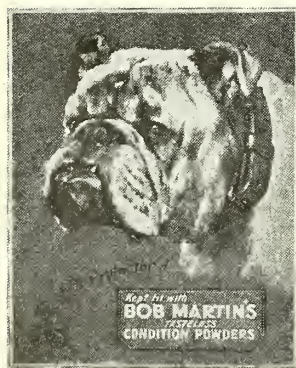
W. MARTINDALE, 12 New Cavendish Street, London, W.1, reminds chemists that in cases of difficulty they should not forget to "try Martindale," as the firm's close connection with the medical profession keeps them acquainted with all the latest therapeutic developments.

NOVELTY HOT-WATER BOTTLES.—Macinlop, Ltd., Cambridge Street, Manchester, are the makers of hot-water bottles which should have a special appeal for children. Particulars and illustrations are given elsewhere in this issue.

ZEISS IKON, LTD., Mortimer House, Mortimer Street, London, W.1, have issued a new edition of their catalogue of cameras, films and other photographic apparatus. A copy of the list will be sent to any chemist on application.

PEPSODENT.—The Pepsodent Co., 8 India Street, London, E.C.3, who are utilising the front page of the "Daily Mail" on June 26 to call attention to the virtues of their tooth paste, have available a new artistic showcard and other display material for chemists desirous of linking up with this publicity.

DOG MEDICINES.—We have received from Bob Martin, Ltd., Southport, a copy of a new showcard ready for issue to chemists. This magnificent head of a bulldog is a reproduction of a painting by an eminent artist, and is even better than the two previous showcards of this series. Messrs. Bob Martin, while combining a maximum artistic appeal with a strong selling argument for their condition powders, have borne in mind the limitations of window or counter space in pharmacies. Though this new card is of a size (10 in. by 8 in.) that enables a space to be found for it, however



full a window may be, it is of such genuine artistic value that it cannot fail to attract attention wherever it is displayed. For chemists who have not already handled the company's lines a representative range of them is available in the form of a special display parcel.

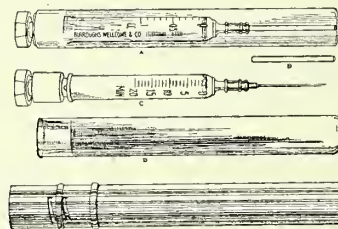
IONIZED IODINE is advertised in this issue by Molson Ionized Iodine Co., Ltd., 34c Gabriel's Hill, Maidstone.

CLOSED FOR OUTING.—Meggeson & Co., Ltd., New Church Street, Bermondsey, London, S.E.16, inform us that their works will be closed on June 20, the date of the annual staff outing.

BONUS OFFER.—Thompson & Capper Wholesale, Ltd., Manesty Buildings, College Lane, Liverpool, are offering a display bonus in connection with their well-known moth killer. Mothaks, which, as they are attractively packed and differ from the class of preparation generally offered for this purpose, should meet with a ready sale at this time of year.

EXPORT PRICE LIST.—Ayrton, Saunders & Co., Ltd., manufacturing chemists, 34 Hanover Street, Liverpool, have just brought out a new export list, copies of which are being mailed to all their customers abroad. Any chemist overseas who does not receive one in the ordinary course may obtain the catalogue free of charge on writing for it. The list is divided into sections relating to "drugs," "in bond," "tablets," "pills," "capsules," "packed goods," "tropical remedies," and "sundries," each being indicated by a thumb index.

THE TWO-PIECE AGLA SYRINGE.—Many practitioners appreciate the simplicity which is a feature of the two-piece syringe, and, to meet the demand which has arisen for this type of instrument, Burroughs Wellcome & Co., Snow Hill Buildings, London, E.C.1, have issued the following in spirit-tight containers:—1 c.c. two-piece syringe (also



graduated in minims); 1 c.c. two-piece insulin syringe, graduated in 1/20th of 1 c.c.; 5 c.c. two-piece syringe; 10 c.c. two-piece syringe. With the aid of these simple and compact outfits an Agla two-piece hypodermic syringe, with a needle in position, may be carried ready for immediate use. The outfits consist of a syringe, fitted with a rustless steel needle, in a glass container, the whole enclosed in a cylindrical metal case. By an ingenious arrangement the tube containing the spirit can be replaced in the metal case without fear of spilling the contents whilst the syringe is in use. The piston acts as a stopper and fits firmly into the glass container, thus preventing evaporation or leakage of the alcohol, in which the syringe is constantly immersed. The graduations on the barrel are exceptionally clear and permanent, being baked in by a special process, and the piston has a blue tip which records at a glance the quantity of fluid in the syringe.

BAIRD & TATLOCK (LONDON), LTD., Cross Street, Hatton Garden, London, E.C.1, have sent us a copy of No. 1 of their "B.T.L. Monthly Bulletin," which has just been issued. It is intended in this publication to describe some new apparatus which has recently been put on the market, and to give a foreword written by some scientist who is an expert on the subject for which the apparatus is used. This number deals with the thermionic valve. Copies of the "Bulletin" are issued to anyone interested.

A NEW CATALOGUE.—A well illustrated catalogue has just been published by the County Perfumery Co. (branch of the County Chemical Co., Ltd.), Bradford Street, Birmingham. The lines which will appeal most to C. & D. readers are Brylcreem and Hill's Hair Vigor and anti-scurf lotion. Details of these and a copy of the price list can be obtained on application.

STAFF OUTING.—The employees of Thomas Hodgkinson, Prestons & King, manufacturing chemists, 262 Bishopsgate, London, E.C.2, are holding their annual outing on Saturday, June 27, and the establishment will be closed on that day.

"CANINE" PUPPY FOOD.—It is not an uncommon event to find an attempt being made to rear puppies on cow's milk, the owner not realising until illness supervenes and authoritative information is sought regarding it, that incorrect diet has been the cause of all the trouble. George King & Co., Ltd., Albion Food Mills, Sycamore Street, Old Street, London, E.C.1, have brought out a special food, aptly named K₉ Food, for puppies and kittens. Packed in tins and selling at a reasonable price, this line is one which chemists can supply with every confidence to those of their customers who own these animals.

RESOLUTION.—Under this name the by-products department of Dorman, Long & Co., Ltd., Middlesbrough, issue four strengths of liquid disinfectant. Pine oil grade is guaranteed to contain a minimum of 10 per cent. tar acids; 2/3 Rideal-Walker grade is for lavatories, sinks and general uses; 5/6 Rideal-Walker grade is suitable for use by public bodies and in stables; 18/22 Rideal-Walker grade is for the uses of councils, factories, hotels and for employment in combating disease. The company also markets disinfectant powders in grades of 15, 30 and 50 per cent.

carbolic-acid co-efficient. The solution is packed in containers of 10 oz., 1, 2, 5, 10 and 40 gallons. The powders are supplied in 1 cwt. bags or kegs. Samples and prices will be sent on application. The by-products department of the company also manufactures creosote salts, naphthalene, cresylic acid, toluol, sulphate and chloride of ammonia.

THE TREATMENT of acne vulgaris by means of an antiviral (filtered broth culture) prepared from *B. acnes*, the organism found in the acne pustules, is a logical development of antiviral therapy which is so successful in the treatment of boils and carbuncles, using in that case a staphylococcus antiviral. In the case of acne the application of liquid dressings is inconvenient, on account of the large area of the face often attacked by acne. An ointment is preferable. *B. acnes antiviral* has therefore been incorporated in an elegant ointment having the formula:—Antiviral solution, 44.5 per cent.; phenol, 0.5 per cent.; zinc oxid., 4.0 per cent.; methyl salicylate, 0.2 per cent.; pine oil, 0.8 per cent. lanolin, 50.0 per cent. The ointment is applied to the affected part at night, six applications being usually sufficient to clear up the condition completely. *B. acnes antiviral* ointment (antiviral brand) is supplied in collapsible tubes by the Glaxo Laboratories (56 Osnaug Street, London, N.W.1) under Ministry of Health Licence No. 36, being a product covered by the Therapeutic Substances Act.

Births

Notices for insertion in this column must be properly authenticated.

TRINICK.—At the North London Nursing Home, Finsbury Park, London, N., recently, the wife of J. S. Trinick, M.P.S., 40 Woodlands, N. Harrow, of a daughter.

Marriages

DUNN—WARRILOW.—At the Congregational Church, Stone, Stafford, on June 11, by the Rev. O. J. Beard, M.A., William R. Dunn, M.P.S., Bakewell (formerly of Wolverhampton), to Marjorie Warrilow, M.P.S., daughter of Mr. C. Warrilow, Stone.

EVANS—ELLIS.—At Holy Trinity Church, Dartford, on June 1, J. Ernest Evans, chemist and druggist (Rayner & son, chemists, Uxbridge), to Winifrid Ellis.

JONES—JONES.—At the Borough Welsh Congregational Church, London, on June 1, T. Gilmour Jones, chemist and druggist, Sussex Street, Pimlico, London, S.W., to Betty Ceridwen Jones.

LAMB—SATTELE.—At St. Mary's Church, Poole, on June 1, Raymond E. Lamb, chemist and druggist, Poole, to Ada M. Sattelle.

PEARSON—FOOTE.—At St. Peter's Church, Bury, Lancs, on June 3, Harry Pearson, chemist and druggist, to Amy Foote.

STALLARD—CASTLE.—At St. Laurence Church, Upton, on May 30, Austin Stallard, chemist and druggist, to Grace Doris Castle.

Deaths

BRINSON.—At his residence in Birkenhead, on June 8, Mr. George Brinson, senior representative of Evans Sons Lescher & Webb, Ltd., manufacturing chemists, 56 Hanover Street, Liverpool. Mr. Brinson had recently retired after service extending over fifty years, during the greater part of which time he represented Messrs. Evans Sons Lescher & Webb in North Wales. His per-

sonality endeared him to all with whom he came in contact, and he will be much missed. The interment took place at Bebington Cemetery, Birkenhead, on June 10. The company was represented by the chairman (Mr. J. Herbert E. Evans) and Mr. William C. Brinson (director), Mr. G. Brinson's brother.

CLARKE.—At 15 Torridon Road, Catford, London, S.E.6, on June 2, Mr. William Lane Clarke, chemist and druggist, aged eighty-three.

DE GREEFF.—At White Cottage, Bromley, Kent, on June 10, Marie Antoinette, wife of late Mr. Robert William de Greeff, founder of R. W. Greeff & Co., Ltd., chemical merchants, Thames House, Queen Street Place, London, E.C.4.

DICKINSON.—Recently, Mr. David Dickinson, retired, chemist and druggist, late of Chester, aged seventy-seven. Mr. Dickinson carried on business in Faulkner Street, Hoole, Chester, from 1887 till three years ago, when he retired and went to live at Sunderland. Last year he completed fifty years as a Wesleyan local preacher. He was a freemason, and was keenly interested in bowling. Mr. Dickinson is survived by three sons and a daughter. The funeral took place at Chester.

HAMPTON.—On June 5, following an operation, Mr. John Hampton, a director of A. Bellamy & Co., Ltd., manufacturing chemists, Cleveland Road, Wolverhampton. Mr. Hampton was a member of the local Rotary Club and of two masonic lodges.

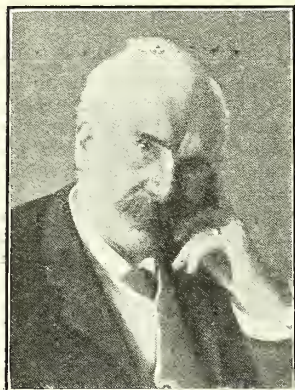
HOLMES.—At his residence, "Inglefield," Bentham, Mr. Bryan Holmes, retired chemist and druggist, aged sixty-three. Mr. Holmes, who retired a few weeks ago, succeeded his father, the late Mr. Edward Holmes, the founder of the business.

SAUNDERS.—Recently, the wife of Mr. C. B. Saunders, chemist and druggist, 59 High Street, Braintree.

SIMPSON.—At his residence, The Crofts, Hespocott, Morpeth, on June 17, Mr. Thomas Simpson, chairman of Wilkinson & Simpson, Ltd., manufacturing chemists, Low Friar Street, Newcastle-upon-Tyne. Mr. Simpson's association with his business extended over fifty-five years, though of late he had not taken an active part in the management. His partnership with Mr. Wilkinson, a fellow apprentice under Mr. Joseph Faire, was entered into fifty years ago, and the business was eventually converted into a limited company. Mr. Simpson is survived by two sons and a daughter.

THOMPSON.—At Catford, London, S.E., on May 25, Mr. Henry Edward Thompson, chemist and druggist, aged sixty-seven.

TRENT.—At Millbrook, Jersey, on June 13, Jesse, first Baron Trent, aged eighty-one. The family of Lord



LORD TRENT

Trent has been traced back to the sixteenth century. Jesse Boot was born on June 2, 1850, in Nottingham, where his father carried on business as a herbalist in Goose Gate. The father died when his son was ten years old, and shortly afterwards the boy was removed from school in order to assist his mother in the shop. While still in his teens he took over the management; at the age of twenty-seven he (in his own words) "began to launch out." His subsequent career is one of the romances of modern commerce.

Within three years he had opened branches in Sheffield and Lincoln; in 1883 he floated the first of the Boots limited companies, with eleven shops; and in 1897 *THE CHEMIST AND DRUGGIST* recorded that "he has under his direct control close upon a hundred shops. . . . Mr. Boot's performance strikes us as an unprecedented and astonishing feat." The most important development of the business in recent years has been the formation of Boots Pure Drug Co., Ltd., with its remarkable manufacturing and dispatch organisation, described and illustrated in the *C. & D.*, 1922, II, 21; and, concurrently with this expansion, the number of retail branches has gone on steadily increasing. As we mentioned in the illustrated article referred to, the operations of the works are on so large a scale that several chemical laboratories are kept fully at work; galenicals are manufactured on a very large scale, and a series of buildings has been specially designed for the production of fine chemicals. During the recent war Boots Pure Drug Co., Ltd., supplied the troops with millions of water-sterilising tablets and with large quantities of respirators. In the buying of the many side-lines associated with the shops of the Boots retail companies Mr. Boot owed a great deal to the judgment and business talent of his wife, who was born in Jersey. Though a constant sufferer from rheumatism, he took an active part in the negotiations which led up to the recognition of company retail trading in the Poisons and Pharmacy Act, 1908. In the following year he was knighted, and in 1916 he was promoted to a baronetcy. In 1920 Sir Jesse sold his controlling interest in Boots Pure Drug Co., Ltd., which at that time had an issued capital of £1,410,000 (an amount since increased), to the United Drug Co., of Boston, U.S.A. For a few years he remained chairman of Boots Pure Drug Co., Ltd., and its associated companies; eventually he retired and was succeeded by his only son, the Hon. John Campbell Boot. He was raised to the peerage in 1929. All his life Lord Trent was a generous benefactor to social and philanthropic causes; the full extent of his gifts to Nottingham is probably unknown, though it may be estimated at about £2,000,000. The opening of the new buildings of Nottingham University College, of which an illustrated account was given in our issue of July 14, 1928 (p. 39), was the culmination of a series of benefactions in which Lady Boot shared. It will be remembered that this stately building was opened by his Majesty the King. Numerous gifts were also made by Lord Trent to various institutions in Jersey, where, under the increasing disablement of rheumatoid arthritis, he of late spent most of his time. Lord Trent is survived by his widow, his son and two

daughters, both of whom are married. The funeral took place on June 16; the first portion of the service was held at St. Helier Parish Church, and the second part in the churchyard at St. Brelade. Among the congregation were Lady Trent, other members of the family, and a large number of public and commercial representatives.

WALKER.—At Mansfield, on May 13, Mr. Vernon Walker, chemist and druggist, aged fifty-nine.

Wills

MR. JOSEPH HEWITT, of 7 High Street, Windsor, Berks, chemist and druggist, who died on March 27 last, left estate of gross value £13,719, with net personality £10,739

MR. JOHN WILLIAM CASTLE, of 35 Argyll Road, W.8, and of Dinneford & Co., 12 Chipstone Street, Marylebone, N.W., died on March 25 last, leaving estate of the value of £114,825 2s. 4d., with net personality £114,091 11s. 9d.

MR. EDWARD HERBERT FISON, of Stoke House, Ipswich, lately chairman of Joseph Fison & Co., Ltd., and of The Chemical Union, Ltd., who died on January 3 last, aged eighty-four, left estate of the gross value of £108,436 13s. 8d., with net personality £103,804 0s. 6d.

Personalities

MR. D. U. STILL, chemist and druggist, Woolwich, London, S.E.18, has given £100 to the endowment fund of the Woolwich War Memorial Hospital, in memory of his wife.

On the occasion of her retirement as head of the perfumery department of Boots, Ltd., chemists, Mostyn Street, Llandudno, after twenty-five years' service, Miss E. J. Williams has been presented with an inscribed Jacobean oak timepiece and other gifts from the company and staff.

MR. S. L. ELBORNE, M.B.E., M.A., barrister-at-law, of Harcourt Buildings, London, E.C.4, and Water Newton, who is a candidate at the by-election in the Ardwick division of Manchester on June 22, is a son of Mr. William Elborne, well known to the older generation of pharmacists, and particularly of those in Manchester, as a lecturer in materia medica and pharmacy at Owens College, and a frequent contributor to the proceedings of the British Pharmaceutical Conference during the 'eighties. Mr. S. L. Elborne graduated at Cambridge. He is a member of the Huntingdonshire County Council, and contested the Bosworth division of Leicestershire at the last general election. Our Manchester correspondent writes: "He is favourably disposed to consider the interests of chemists"—a fact of which those who have interests in the division will, no doubt, take note.

Information Department

INFORMATION WANTED

Postal or telephone information with respect to makers or first-hand suppliers of the undermentioned articles will be appreciated.

L/295. Ampoules Castasol	T/176. Gumption for the gums
B/28. Atokatharticon	S/176. Gouch's (or Gooch's) liquid brilliantine
S/176. B.O.H. shaving cream	H/176. Scandinavian ointment
S/176. Charmosan face powder	E/176. Snowene
M/106. Cuproferrol	D/176. Spedrol (present address)
S/176. Dr. Herald's talc powder	N/176. Squire's antiseptic paper handkerchiefs
H/176. English Glory for the hair (present address)	

Observations and Reflections

By Xrayser III

The New Pharmacopœia

according to a letter read at the latest meeting of the Pharmaceutical Society's Council (*C. & D.*, June 6, p. 665), may be published in the spring of next year, and the report of the Pharmacopœia Committee, from which you quoted (p. 678), conveys much interesting information respecting the work. It would appear that particular care is being taken to effect improvement of the official assay processes and descriptions of vegetable drugs, the latter being planned to include accurate details of microscopical characters, presumably to guard against the use of inferior qualities of powdered drugs. The way of the transgressor who buys unsatisfactory chemicals and drugs for medicinal purposes will thus be made harder than ever, and I should imagine we may witness a tendency to keep smaller stocks of medicaments likely to deteriorate after the new Pharmacopœia is in force. Incidentally, it may be suggested that, in fixing the cost of medicines to the public, loss caused by deterioration ought always to be taken into account by those of us who object to dispensing anything that is not in perfect condition. When the occasion arises for any stock to be destroyed because it is not considered to be in first-class condition, the cost of the stock should be written off as a loss, and the total amount of such losses be taken into account in fixing charges for compounding and dispensing medicines.

Conference Programmes,

though necessarily different in respect of local details, seem always to possess a sameness which is perhaps inevitable, so that the Manchester programme for this year's Conference (*C. & D.*, June 13, p. 683) appears not altogether unfamiliar. Critical perusal, however, makes it evident that much time and thought must have been devoted to the planning of the five days' doings, and those responsible for making all the arrangements must be congratulated upon the skilful fitting in of so many different functions. Even the meetings which, in the beginning, provided the reason for the Conference, are now crowded to the extent that there are science and delegates' meetings at the same time on two of the days. This I regard as a distinct misfortune, because there are always a certain number of persons who wish to attend both groups of meetings. Apparently, however, the only practical remedy for this sort of thing would be to cut out some of the social functions, so that business meetings could be held after 5 p.m. on the Tuesday and Wednesday.

When George Newnes

embarked upon the enterprise of "Tit-Bits from the most interesting Books, Periodicals and Newspapers" in 1881 he was following in the footsteps of an equally enterprising publisher, who was 150 years in advance of him. It is just two hundred years ago, in 1731, that Edward Cave put forth the first number of the "Gentleman's Magazine," which was to have a life, not marked by violent vicissitudes, extending to 1868, that is, almost to within sight of the birthday of "Tit-Bits." For me the "Gentleman's Magazine" and some of its imitators, such as the "European Magazine" and the "London Magazine" are full of interest as mirrors of the intellect and social life the days in which they were published. No class of persons having any curiosity as to the doings and thoughts of the eighteenth and early nineteenth centuries can fail to be instructed and frequently amused. There is no need to write of the authors who were pleased to follow the example of Samuel Johnson

and assist Cave with their contributions, nor is it necessary to say how assiduously he availed himself of all the literary contents of the two hundred "half sheets" published each month in London. His monthly collection was so varied as to make his publication an immediate success.

The Pages

of Cave's publication still furnish matter of value for the person with the "Tit-Bit" mind. As an example we may take the volume for 1734, in which are several articles appropriate to the pharmaceutical reader. This is one:—"We are desir'd by two Different Correspondents to insert a Receipt for making most EXCELLENT DROPS; which they affirm to have been of great Benefit in most Cases mention'd below, from the Experience of several Families who use them. One adds, tho' they may not equal the Surprising Effects, reported of Mr. Ward's Drops, their operation when taken internally is no ways violent, and therefore, if it does not succeed, is free from any dangerous consequences." The recipes offered bear a great likeness to the *Balsamum Traumaticum* which became official in the 1746 Pharmacopœia, as will appear from this copy of one of them:—"Take Balsam of Peru 1 ounce, the best Storax 2 ounces, Benzamin impregnated with Sweet Almonds (*sic*) 3 ounces; Aloes Succotrin, Myrrh Elect, purest Frankincense, Roots of Angelica, Flowers of St. John's Wort, of each half an ounce, Spirits of Wine rectify'd a Pint—Beat the Drugs together and put them with the Spirits into a bottle well stopper'd; set in a Kettle of Water of the Warmth you can bear your hand in and let it so continue 5 or 6 days. Do not decant it till it has stood about a quarter of a year." The virtues of these preparations are described at considerable length, but are just such as we associate with the tinct. benzoin. comp., whether used for toothache, internal aches and pains of the abdomen and back, wounds and scalds, as well as for the wounds of horses, etc. Throughout the volumes there are many paragraphs equally interesting to the chemist and physician.

The Advertisements

are most entertaining. To take one, from the same volume, which appears as an announcement:—"A LUCID ALEMbic is now improving and in daily Use in the County of Warwick. Being a Still of a new Invention without either Worm or Water to condense and cool the Exhalation or distilling Water; and being well made (tho' no great charge) will last 100 years. If any Gentleman please to be at the Charge of one more lucid, made all of strong transparent Glass (except the Boiler) upon his intimation in this Book, he shall be obliged in it by S— N—." The advertiser was a mightily ingenious man in several ways. He evidently intended that interested readers should dig him out of his anonymity and he had a mind to provoke their curiosity by his description of the "curious Phænomena" revealed to the naked eye by his "lucid" still. The "Gentleman's Magazine" is a mine wherein all students may profitably quarry.

ODD USES FOR DISINFECTANTS.—Remarking in the June issue of a local magazine that it has been necessary to reduce the amount of disinfectants which for years have been issued to ratepayers at the Town Hall, Stonehouse, the medical officer of health added that most of the disinfectants were used in a way not exactly intended. "One man said he soaked his beef in the disinfectant when the beef commenced to 'turn off.' Another customer used it in the water with which she washed her face to improve her complexion."



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Editorial Articles

That "Analyst's Standard" Again

WE notice that the Shoreditch Borough Council was ordered to pay £5 5s. costs on June 5 by the Old Street magistrate, who dismissed a summons against a defendant charged with selling sherry "not of the nature, substance and quality demanded." When the solicitor for the prosecution was questioned by the learned magistrate as to what "standard" he was talking about, he replied, "That in the analyst's certificate," and (*C. & D.*, June 13, p. 680) proceeded to argue that "the analyst's certificate constituted a standard, and in the event of there being no standard it was for the Court to fix a standard." Ordinary people would have supposed that the second half of the sentence, granted the accuracy of the first half, was superfluous. Fortunately, in this case, the defence (i.e., that no standard existed except for medicinal purposes) was submitted to a trained legally minded magistrate, who promptly dismissed the summons and ordered costs to be paid to the defence. This notion, sedulously cultivated by local authorities all over the country, that any borough or county analyst can set up a standard of his own for any particular food or drug and then put the onus of displacing it upon an unfortunate defendant, who in nineteen cases out of twenty comes before a bench of lay magistrates (who are probably inclined to convict him because the local analyst says he has done something wrong), needs to be knocked on the head effectively, and it may be hoped that the example of practical wisdom shown by the Old Street magistrate will not be lost upon other magistrates. The idea of standards being fixed by lay magistrates is, happily, not likely to be adopted by lawyers. Again and again we have advocated an extension of the principle of standardisation as a means of avoiding the necessity for quasi-criminal prosecutions of perfectly innocent tradesmen who (as in the Shoreditch case) are not committing any offence. For some reason, not very easy to understand, local authorities and their officers do not show any very keen disposition to advocate standardisation except by these sudden and spasmodic efforts to establish precedents by getting magistrates to accept arbitrary standards placed before them in the way that was attempted in the sherry case. Great Britain is still far behind her Colonies in dealing with foodstuffs and drugs. In Canada, New Zealand and South Africa (to name only places within the Empire) effective standardisation has been adopted, as in foreign countries. Here, apart from the recognition that the Courts have extended to the British Pharmacopœia for drug standards, there is no standard for anything except milk, cream, butter and margarine, which have needed all the machinery of special Acts of Parliament for their benefit. It remains to be seen what will follow from the conclusions of the Committee appointed by the Minister of Health and Secretary of State for Scotland to inquire into the law regarding the composition and description of foods other than milk (*C. & D.*, May 23, p. 589). It is a curious fact, revealed in the Shoreditch case, that where a

definite standard is given in the B.P. the prosecution should carefully avoid mentioning the fact in Court, leaving it to the defence to do so. The object of the prosecution, clearly, was to set up a non-medicinal standard. And it failed.

Cod-Liver Oil

THE trend of this market some few months ago was in accordance with the movements in values of most other products during the present severe depression. The shipment quotation for medicinal oil in January having been down to 93s. to 94s. per barrel, c.i.f., falling to that figure from about 103s. per barrel quoted at the latter part of 1930. In March the market, although quiet, took on a better tone and shipment quotations began to harden and jumped in a few days to 107s. 6d., reaching 120s. by early April and then declining to about 106s. per barrel in early May. Since that time, with continued reports of disappointing fishing returns, the market has gradually improved, and to-day the shipment figure is firm in the region of 112s. per barrel, c.i.f., for finest brands of non-freezing, steam refined Lofoten oil. With the fishing season at an end available supplies will not, it is estimated, be sufficient to meet normal demands for the coming year. The latest figures available show that the total catch of cod is approximately 40 million, compared with 61 million in 1930 and 78 million in 1929. The resultant production of medicinal oil for this year is about 59,000 hectolitres against 78,500 in 1930 and 90,500 in 1929. The latter year was an abnormal one, but compared with the figures of 1930, a normal year, it will be seen that there is a serious shortage this year. Buyers in this market appear to have been limiting their calls for immediate and near requirements. It is reported this week that bids cabled over to shippers have been rejected in anticipation of values moving up to more economic figures as the autumn approaches. It is understood that the refineries estimate the cost of producing the finest brands this year to be not less than 118s. per barrel, c.i.f., and a shipment figure that will give them this return is no doubt being aimed at. This product has no serious competitor; its chief use is a fairly common one that has been popularised during the past few years with improved methods of production. Despite the universal depression, it is difficult to believe that the demand will suffer to any material extent on that account. It therefore seems fair to assume that with the approach of the buying season at the end of the summer, if not before, the market is likely to be quoted at somewhat higher rates.

Large Find of Ambergris

AN account of a Norwegian captain's luck in finding a piece of ambergris weighing 131 lb. is given in a recent issue of a Sunday newspaper. The ambergris in question was taken from a sperm whale off the Norwegian coast by Captain Ingebrigsten, proprietor of the Aukr Hoal Whaling Company. Prospecting the fjords to the north, he came across a school of four sperm whales, one of which—an old bull—he managed to shoot after an hour's manœuvring. The ambergris in question has been sent to Paris, and the captain's chief anxiety is what effect the lump will have on the market on which it is suddenly unloaded. Much, of course, will depend on the quality, of which no mention is made. On several occasions the *C. & D.* has reported bigger finds than this, including one of 900 lb. in 1913. The lump will no doubt be broken up and sold piecemeal, with the usual secretiveness attending this precious substance.

Pharmacopœia Commission

Report of the Pharmaceutical Chemistry Subcommittee

The Pharmacopœia Commission have received from the Pharmaceutical Chemistry Subcommittee a report on certain sections of the work done by that Subcommittee. It is the desire of the Commission and of the Pharmaceutical Chemistry Subcommittee that the report should receive the widest possible circulation in order to secure criticisms of the statements made and suggestions for improvement. The Commission invite criticisms and suggestions from medical practitioners, pharmacists, and others interested. Careful consideration will be given to all opinions evoked by this Report, original copies of which may be obtained from the Pharmacopœia Commission, General Medical Council Office, 44 Hallam Street, London, W.1.

(Concluded from the C. & D., June 13, p. 691.)

[ABSTRACT]

Chemicals

HYDRARGYRI IODIDUM RUBRUM.—Contains not less than 99 per cent. of HgI_2 . Test: limit of chlorides.

HYDRARGYRI OXIDUM FLAVUM.—Contains not less than 99.3 per cent. of HgO , calculated on the dry substance. Test: limit of moisture.

HYDRARGYRI PERCHLORIDUM.—Contains not less than 99.5 per cent. of HgCl_2 .

HYDRARGYRI SUBCHLORIDUM.—Contains not less than 99.6 per cent. of HgCl .

HYDRARGYRUM.—Contains not less than 99.5 per cent. of Hg .

HYDRARGYRUM AMMONIATUM.—Contains not less than 98 per cent. and not more than the equivalent of 100.5 per cent. of HgNH_2Cl . Test: limit of mercurous chloride and carbonates.

HYOSCINÆ HYDROBROMIDUM.—Hydrobromide of lævotatory hyoscyne or scopopolamine obtained from various plants of the natural order Solanaceæ. Tests: absence of other alkaloids, limit of readily oxidisable substances.

IODUM.—Contains not less than 99.5 per cent. of I . Tests: limit of cyanogen, limit of chloride.

IODOFORMUM.—Test: absence of iodides.

KAOLINUM.—Tests: limit of soluble matter, limit test for chlorides, limit of water and volatile impurities.

LACTOSUM.—Test: limit of copper.

LIQUOR AMMONIÆ DILUTUS.—Contains not less than 9.5 and not more than 10.5 per cent. w/w of NH_3 . Test: limit of tarry matter.

LIQUOR AMMONIÆ FORTIS.—Contains not less than 31.5 and not more than 33.5 per cent. w/w of NH_3 . Tests: limit of tarry matter, limit of non-volatile matter.

LIQUOR FORMALDEHYDI.—Contains not less than 37 and not more than 41 per cent. w/v of CH_2O .

MAGNESII CARBONAS LEVIS.—Tests: limit of soluble matter, limit of copper, limit of calcium, limit test for chlorides, limit test for sulphates, limit for iron.

MAGNESII CARBONAS PONDEROSUS.—Tests: limit of soluble matter, limit of copper, limit of calcium, limit for chlorides, sulphates, iron.

MAGNESII OXIDUM LEVE.—Complies with limit tests for soluble matter, copper, calcium, chlorides, sulphates and iron.

MAGNESII OXIDUM PONDEROSUM.—Complies with limit tests for soluble matter, copper, calcium, chlorides, sulphates and iron.

MAGNESII SULPHAS.—Contains not less than 99.5 per cent. and not more than the equivalent of 102 per cent. of $\text{MgSO}_4 \cdot 7\text{H}_2\text{O}$. Tests: limit of zinc, limit for chlorides, limit of iron.

MORPHINÆ HYDROCHLORIDUM.—Test: limit of other alkaloids.

MORPHINÆ TARTRAS.—Complies with the limit test for other alkaloids described under "morphinæ hydrochloridum."

METHYLIS SALICYLAS.—Contains not less than 98 per cent. of $\text{C}_6\text{H}_4\text{OH} \cdot \text{COOCH}_3$. Test: limit of acidity.

PARAFFINUM MOLLE ALBUM.—Has most of the characters and responds to the tests for purity described under "paraffinum molle flavum."

PARAFFINUM MOLLE FLAVUM.—Mixture of semi-solid hydrocarbons obtained from petroleum. Tests: fixed oils, soaps or colophony.

PARAFFINUM DURUM.—A mixture of solid hydrocarbons obtained from petroleum of shale oil.

PARAFFINUM LIQUIDUM.—A mixture of liquid hydrocarbons obtained from petroleum.

PARALDEHYDUM.—Tests: limit of acidity, limit of acetaldehyde, limit of peroxidised compounds.

PLUMBI ACETAS.—Contains not less than 99.5 per cent. and not more than the equivalent of 104.5 per cent. of $\text{Pb}(\text{CH}_3\text{COO})_2 \cdot 3\text{H}_2\text{O}$. Tests: absence of copper, iron, zinc and silver; limit for chlorides.

PLUMBI OXIDUM.—Contains not less than 99 per cent. of PbO calculated with reference to the ignited substance.

POTASSII ACETAS.—Contains not less than 99 per cent. of CH_3COOK calculated with reference to the substance dried at 100° . Tests: limit of alkalinity, limit of aluminium and calcium, limit for chlorides, limit for sulphates.

POTASSII BICARBONAS.—Contains not less than 99 per cent. and not more than the equivalent of 101 per cent. of KHCO_3 . Tests: limit of aluminium, calcium and insoluble matter, limit for sulphates.

POTASSII BROMIDUM.—Contains not less than 99 per cent. of KBr , calculated with reference to the dry salt. Tests: limit of alkali, limit of bromate, absence of barium, limit of chloride, limit for sulphates, limit for iron.

POTASSII CHLORAS.—Contains not less than 99 per cent. of KClO_3 .

POTASSII CITRAS.—Contains not less than 99 per cent. of $\text{K}_2\text{C}_6\text{H}_5\text{O}_7 \cdot \text{H}_2\text{O}$. Tests: limit of alkalinity and acidity, limit of oxalates, limit of tartrates, limit for chlorides, limit for sulphates.

POTASSII IODIDUM.—Contains not less than 99 per cent. of KI calculated with reference to the substance dried at 110° . Tests: limit of alkali, limit of iodate, limit of barium, limit of cyanide, limit for sulphates.

POTASSII NITRAS.—Contains not less than 99 per cent. of KNO_3 . Tests: absence of ammonium compounds, limit of zinc.

POTASSII PERMANGANAS.—Contains not less than 99 per cent. of KMnO_4 .

QUINIDINÆ SULPHAS.—Sulphate of an alkaloid obtained from the bark of various species of cinchona. Tests: distinction from many other alkaloids, distinction from quinine sulphate, limit of readily carbonisable substances, absence of inorganic salts and other alkaloids, limit of other cinchona alkaloids.

QUININÆ BISULPHAS.—Tests: distinction from quinine sulphate, limit of readily carbonisable substances, limit of other cinchona alkaloids.

QUININÆ ET AETHYLIS CARBONAS.—Fine, soft, white, matted needles with practically no taste, darkens on exposure to light. Tests: limit of sulphates, limit of chlorides. Should be kept protected from light.

QUININÆ HYDROCHLORIDUM.—Tests: limit of readily carbonisable substances, limit of inorganic salts and other alkaloids, limit of barium, limit of other cinchona alkaloids.

QUININÆ SULPHAS.—Tests: distinction from quinine sulphate, absence of readily carbonisable substances, absence of inorganic salts and other alkaloids, limit of other cinchona alkaloids.

QUININÆ TANNAS.—Contains between 30 and 35 per cent. of anhydrous quinine. Tests: limit of free quinine, limit of other cinchona alkaloids, absence of heavy metals.

SACCHARINUM SOLUBILE.—Sodium derivative of *o*-benzoyl sulphonimide, prepared by neutralising *o*-benzoyl sulphonimide with a solution of sodium hydroxide or sodium bicarbonate and evaporating. Tests: absence of benzoates and salicylates, limit of *p*-sulphamido-benzoic acid. Lead limit, 10 parts per million.

SODII BENZOAS.—Contains not less than 99 per cent. of C_6H_5COONa calculated with reference to the substance dried at 110° . Tests: limit of acidity or alkalinity, limit of chlorinated compounds, limit for chlorides, limit for sulphates.

SODII BICARBONAS.—Contains not less than 99 per cent. and not more than the equivalent of 101 per cent. of $NaHCO_3$. Tests: limit of aluminium, calcium and insoluble matter, limit for chlorides, limit for sulphates.

SODII BROMIDUM.—Tests: limit of alkali, limit of bromate, limit of barium, limit of chloride, limit for iron, limit for sulphates.

SODII CHLORIDUM.—Contains not less than 99.5 per cent. of $NaCl$ calculated with reference to the dry salt. Tests: absence of bromide and iodide, limit of barium, limit of calcium and magnesium, limit for sulphates, limit for iron.

SODII CITRAS.—May be obtained by the interaction of citric acid and sodium carbonate, and contains not less than 99 per cent. of $Na_2C_6H_5O_7 \cdot 2H_2O$. Tests: limit of alkalinity and acidity, limit of oxalates.

SODII ET POTASSII TARTRAS.—Contains not less than 99 per cent. and not more than the equivalent of 104 per cent. of $KNaC_4H_4O_6 \cdot 4H_2O$. Tests: limit of acidity and alkalinity.

SODII NITRIS.—Contains not less than 95 per cent. of $NaNO_2$.

SODII PHOSPHAS.—Contains not less than 99 per cent. and not more than the equivalent of 105 per cent. of $Na_2HPO_4 \cdot 12H_2O$. Tests: limit of calcium and magnesium.

SODII PHOSPHAS ACIDUS.—Contains not less than 98 per cent. of $NaH_2PO_4 \cdot 2H_2O$. Tests: limit of di-sodium phosphate.

SODII SALICYLAS.—Contains not less than 99.5 per cent. of $C_6H_4(OH)COONa$ calculated with reference to the substance dried at 110° . Tests: limit of free acid.

SODII SULPHAS.—Contains not less than 99 per cent. and no more than the equivalent of 102 per cent. of $Na_2SO_4 \cdot 10H_2O$. Tests: limit of acidity or alkalinity, limit of iron and zinc, limit of magnesium.

STRYCHNINÆ HYDROCHLORIDUM.—Contains not less than 91 per cent. and not more than 93 per cent. of anhydrous strychnine hydrochloride, $C_{21}H_{22}O_4N_2 \cdot HCl$. Tests: limit of brucine, limit of sulphate, limit of readily carbonisable substances.

SULPHUR PRÆCIPITATUM.—Test: limit of acidity.

SULPHUR SUBLIMATUM.—Test: limit of acidity.

THYMOL.—Colourless crystals having a pungent aromatic taste and a pungent aromatic thyme-like odour.

ZINCI OXIDUM.—Contains not less than 99 per cent. of ZnO calculated with reference to the freshly ignited substance. Tests: absence of metallic zinc, limit of lead.

ZINCI SULPHAS.—Contains not less than 99.5 per cent. and not more than the equivalent of 101 per cent. of $ZnSO_4 \cdot 7H_2O$. Tests: limit of acidity, limit of copper, aluminium, nickel, manganese and magnesium.

Essential Oils

EUCALYPTOL.—*Synonym:* Cineole. $C_{10}H_{18}O$. Mol. Wt., 154.1. The anhydride of terpin or methan.1.8.diol. It may be obtained from oil of eucalyptus. Contains not less than 97.5 per cent. w/w of $C_{10}H_{18}O$. A colourless liquid with a characteristic aromatic camphoraceous odour and a pungent and cooling taste. Soluble in an equal volume of alcohol (70 per cent.). Specific gravity ($15.5^\circ/15.5^\circ$), 0.928 to 0.930; optical rotation, not greater than $\pm 1^\circ$; refractive index at 20° , 1.456 to 1.460; freezing point, not below 0° .

OLEUM ABIETIS.—Contains not less than 35, and not more than 45 per cent. w/w of esters calculated as bornyl acetate, $C_{12}H_{20}O_2$.

OLEUM ANETHI.—Contains not less than 43 per cent. w/w and not more than 63 per cent. w/w of carvone, $C_{10}H_{14}O$.

OLEUM ANISI.—Test: limit of lead.

OLEUM CADINUM.—Test: absence of pine tar oil.

OLEUM CAJUPUTI.—Contains not less than 50 and not more than 60 per cent. w/w of cineole, $C_{10}H_{18}O$.

OLEUM CARI.—Contains not less than 53 per cent. w/w and not more than 63 per cent. w/w of carvone, $C_{10}H_{14}O$.

OLEUM CARYOPHYLLI.—Contains not less than 85 and not more than 90 per cent. v/v of eugenol, $C_{10}H_{12}O_2$.

OLEUM CINNAMOMI.—Contains not less than 50 and not more than 60 per cent. w/w of cinnamic aldehyde, C_9H_8O .

OLEUM EUCALYPTI.—Contains not less than 70 per cent. of cineole, $C_{10}H_{18}O$. Tests: limit of phellandrene, limit of aldehydes.

OLEUM LAVANDULÆ.—Contains from 7 to 14 per cent. w/w (English oil) or not less than 35 per cent. w/w (foreign oil) of esters calculated as linalyl acetate, $C_{11}H_{18}O_2$.

OLEUM LIMONIS.—Contains not less than 4 per cent. w/w of aldehydes calculated as citral, $C_{10}H_{16}O$.

OLEUM MENTHÆ PIPERITÆ.—Contains not less than 4.5 per cent. w/w and not more than 9 per cent. w/w of esters calculated as menthyl acetate, $C_{11}H_{22}O_2$, and not less than 46 per cent. w/w of free menthol, $C_{10}H_{20}O$. Test: distinction from Japanese mint oil.

OLEUM ROSMARINI.—Contains not less than 2 per cent. w/w of esters calculated as bornyl acetate, $C_{12}H_{20}O_2$, and not less than 9 per cent. w/w of free alcohols calculated as borneol, $C_{12}H_{18}O$.

OLEUM SANTALI.—Contains not less than 2 per cent. w/w of esters calculated as santalyl acetate, $C_{17}H_{26}O_2$, and not less than 90 per cent. w/w of free alcohols calculated as santalol, $C_{15}H_{24}O$.

OLEUM SANTALI AUSTRALIENSIS.—Contains not less than 90 per cent. of free alcohols calculated as $C_{15}H_{24}O$.

OLEUM TEREBINTHINÆ RECTIFICATUM.—Soluble in 7 volumes of alcohol (90 per cent.) and in all proportions of alcohol (95 per cent.), chloroform, ether and glacial acetic acid.

TEREBENUM.—Terebene is a mixture of dipentene and other hydrocarbons obtained by steam-distilling the product of the limited action of sulphuric acid on oil of turpentine.

OLEUM ARACHIS.—Test: absence of other vegetable oils.

Fixed Oils

OLEUM MORRHUÆ.—Oil expressed from the fresh liver of the cod, *Gadus morrhua*, Linn., from which solid fat has been separated by filtration at or about 0° .

OLEUM OLIVÆ.—Oil expressed from the ripe fruit of *Olea europæa* (Linn.).

OLEUM RICINI.—Miscible with dehydrated alcohol or glacial acetic acid; soluble in 3.5 parts of alcohol (90 per cent.).

OLEUM SESAMI.—Complies with the tests for the absence of cotton-seed and arachis oils.

Psyllium Seed

It is a curious fact that although the botanical drug *Plantago psyllium*, commonly known as psyllium seed or fleaseed, has been cultivated in France and Spain for over fifty years for local medicinal purposes, it is only within the past three or four years that it has come into prominence. In fact, owing to the reputation it has gained in the United States as an intestinal lubricant, it has become famous overnight, as it were. Until 1928 only a very small quantity was sent to the United States, but in 1930 it proved to be one of the foremost of the botanical drug imports, with a value estimated at approximately \$450,000, most of which was supplied by France. Psyllium is frequently found on the American breakfast table, where they are taken in their natural condition with food. With so popular a drug much market manipulation has taken place, both in France and the United States, and as the position is of considerable interest, a correspondent has favoured us with the following report of recent happenings on the market.

A SITUATION WITHOUT PARALLEL

Amidst the welter of falling values, so much in evidence during the past year, an outstanding example of the opposite rivets the attention and furnishes the paradox of abnormal advance in price concomitant with superabundant supplies. The outstanding exceptional instance is fleaseed, of which 400 to 500 tons were ample for the demands of the United States buyers, but in 1929 no fewer than 800 tons were required. Considered opinion hardly ventured to prophesy a further demand greater than this quantity, more particularly in view of the widespread depression in business that has prevailed in the United States, the only large buyer of psyllium. The situation was, within the bounds of normal conceptions, quite simple. A demand that could hardly hope to exceed 800 tons and a crop in France of more than 1,200 tons to fill it.

ATTEMPTS TO CORNER SUPPLIES

In connection with the position, it is interesting to note that at the opening offerings of the new crop last July prices ranged from fr. 9 to 10 per kilo c.i.f. U.S. port, and prices as low as fr. 9 were quoted as late as August-September last year. To-day the price on the American market is nominally 70 cents per lb. When

last year's crop was collected interested American buyers appeared in France and proceeded to buy up supplies, paying in many cases 40 to 50 per cent. more than normal prices to the farmer sellers, who, no doubt, reaped a golden harvest, but appeared to overlook their previous commitments. In addition to this, French collecting firms who had possibly sold without covering on the expectation of obtaining supplies at lower rates later in view of the large crop, found themselves unable to secure sufficient quantities to fill the contracts they had undertaken.

PRICES SOARED IN U.S.A.

Meanwhile, prices in the U.S.A. soared to unheard of heights. A report from the United States Consulate at Marseilles stated that the 1930 crop of French psyllium was good, probably more being produced than normal demand required. An estimate believed to be reliable stated that the 1930 crop was approximately 1,400 metric tons, an amount considerably in excess of the 1929 crop. The American Consulate further estimated that a profit corresponding to that realised on other seeds would be possible even at the price of fr. 6 per kilo.

A MARKET ABSURDITY

Thus, in a world of falling values, with the outlook pointing to a normal recession in price, fleaseeds stand out as a paradox of supplies in excess of previous demands and prices soaring to extravagant peaks. Those who had purchased supplies for later delivery, with a knowledge of the intrinsic value of the commodity, found themselves in an unenviable position. They were, of course, unable to obtain delivery, their suppliers having grossly over-sold with the soaring market. Genuine business was thus defeated by methods that are bound to have an adverse effect on the future prosperity of the industry.

It is reported that supplies this year will be 25 to 40 per cent. greater than last year, provided climatic conditions are normal. If the growers and collectors in France take the long view, they will learn that the increase in the use of psyllium seed can be used to help them build up an important stable industry of definite economic value to the farming community.

New Books

Campbell, W.—*Business Accounts and Finance. Business Organisation and Routine.* 6½ in. by 4 in. Pp. 64. 1s. each. Pitman & Sons, Ltd., Parker Street, London, W.C.2. [These are the third and fourth of the handy series known as Pitman's Business Library. They may be regarded as an introduction to the subjects of which they treat. Within their limits they are clearly arranged.]

Campbell, D.—*Handbook of Therapeutics.* 7 in. by 5 in. Pp. 411. 12s. 6d. E. & S. Livingstone, 16 and 17 Teviot Place, Edinburgh. [The value of a manual of this type is not confined to the purposes of medical students (with whom we are not concerned), but extends also to pharmacists who wish to know something of the therapeutic effects of medicines. It is interesting to note that in the preface the influence of Professor Ralph Stockman is acknowledged. To the list of substances affected by the Dangerous Drugs Acts contained on page 15 should be added dihydro-morphinone; and the treatment of rickets (pp. 340-41) might with advantage have been slightly amplified. There is an obvious slip on page 10 in giving 20-30 c.c. as the equivalent of 1 oz., and the quantity of soft soap (1-2 oz.) suggested for an evacuant enema on p. 39 is slightly higher than present-

day practice sanctions. These matters of detail, however, do not materially affect our view of the book as a well-balanced and comprehensive survey of the subject.]

Ullmann, F.—*Enzyklopädie der technischen Chemie.* Vol. VI (Gold-Kühler). 10½ in. by 7½ in. Pp. 848. Marks 54. Verlag von Urban & Schwarzenberg, Berlin and Vienna. [The sixth volume of the new and revised edition of Ullmann's compendium of applied chemistry shows that the high standard of the work is fully maintained. The following subjects, *inter alia*, are dealt with in the form of comprehensive monographs:—Gold; printing inks; gums; hafnium; urea; resin industry; hexamethylenetetramine; wood; wood preservation; wood cellulose; wood carbonisation; hydroquinone; indigo; iridium; iodine and its compounds; jute; coffee; cocoa; potash industry; low temperature production and its uses; chemical warfare; catalysis; indiarubber; candles; adhesives; cobalt; carbonic acid; carbon; treatment of coal; coke; colloids; condensation apparatus; preserved foods; cork; cosmetics; creosote; cresols; crystallisation apparatus; refrigerating appliances. The details of manufacturing processes, with numerous illustrations of apparatus, references to the literature and to patents, render the work particularly valuable to those in search of such information, not to mention the wide range of other useful data, scientific, commercial and statistical embodied in the individual monographs.]

Trade Report

The prices given in this section are those obtained by importers or manufacturers for bulk quantities or original packages. To these prices various charges have to be added, whereby values are in many instances greatly augmented before wholesale dealers receive the goods into stock, after which much expense may be incurred in garbiling, packing, etc. Qualities of chemicals, drugs, essential and fixed oils, and many other commodities vary greatly, and higher prices than those here quoted are charged for selected qualities of natural products even in bulk quantities.

28 Essex Street, W.C.2, June 18

BUSINESS in pharmaceutical chemicals continues on routine and rather restricted lines, with the market keeping fairly steady on quotation, with some price-cutting in evidence for some products. The seasonal articles, citric and tartaric acids, remain dull for the time of year, and business in cream of tartar is not what it might be. These markets remain unsteady, with the outlook unpromising. In the crude drugs section there is a rather despondent feeling in the markets, with business still of little importance. Cod-liver oil has a firm undertone with shippers holding for better prices. Cocoa butter and desiccated coconut are steadier after recent declines. The demand for ipecacuanha and cascara sagrada is disappointing. Menthol is dull and unsteady. Saffron shows a recovery. There has been more interest in tragacanth, with shipment business moving. There has been a little more life in the markets of some of the essential oils and recoveries from recent low levels are recorded. Lemon is active and advancing. Anise (star) is flat. There is more business for Japanese demethylised peppermint and values are slightly better. Juniper berry is slightly dearer. Although still rather quiet these markets as a whole show some signs of living up. Industrial chemicals are generally unchanged, while business is moving on limited lines. In the coal-tar section the demand for cresylic acid continues, with the market bright. In fixed oils, olive is cheaper on a dull market. Linseed (raw, naked) is steadier, while American turpentine is rather dearer, but the market is slow.

Firmer	Easier
Juniper berry oil	Candelilla wax
Lemon oil	Cascara sagrada
Saffron	Cream of tartar
Turpentine	Ephedrine hydrochloride
	Formaldehyde
	Naphthalene
	Olive oil

Pharmaceutical Chemicals, etc.

BUSINESS continues on a rather limited scale in most items, while the tone is keeping generally steady, there being no important price alterations to record. Bromides are being keenly quoted. Citric and tartaric acids remain slow for the time of year and are still unsteady. Cream of tartar is a point easier, with business only moderate.

ACETANILIDE remains quiet, with quoted prices unchanged: B.P. crystals and powder, 1s. 4½d. to 1s. 6d. per lb., as to quantity.

AMIDOL is steady and there is a fair inquiry on the market: one cwt., 7s.; 56 lb., 7s. 3d.; 28 lb., 7s. 6d.; 14 lb., 7s. 9d. per lb., in 7-lb. tins.

AMIDOPYRIN does not meet with much business, but the market keeps steady: crystals, five cwt., 12s. 9½d.; two cwt., 13s. 0½d.; less than two cwt., 13s. 3½d. per lb., with powder 1½d. per lb. extra.

ASPIRIN is now at the quiet season, but there is the usual flow of limited business; market steady. Home trade: ten cwt., 2s. 7d.; five cwt., 2s. 8d.; one cwt., 2s. 8½d.; 28 lb., 2s. 9d.; 14 lb., 2s. 10d.; 7 lb., 3s.; 1 lb., 3s. 4d. per lb. Export to Colonies and British Possessions: ten cwt., 2s. 7d.; five cwt., 2s. 8d.; one cwt., 2s. 8½d. per lb., f.o.b.; less than one cwt., 2s. 9d. per lb., ex works.

BARBITONE has been seldom inquired for: holders' quotations are steady: spot, one cwt., 7s. 3d.; smaller parcels, up to 7s. 9d. per lb.

BENZOIC ACID (B.P.) is a fairly bright item, with keen quotations for any important business: quantities, ex works, 1s. 9½d.; spot parcels, 1s. 10d. to 1s. 10½d. per lb., ex store.

BISMUTH SALTS.—The Convention scale of prices is holding steady; some outside material available: carbonate, 7s. 3d.; subnitrate, 6s. 6d. per lb., in minimum cwt. lots.

BROMIDES.—Rather quiet markets are reported and there is a certain keenness for business; the quoted prices are being discounted for larger quantities: ammonium, 1s. 7d. to 1s. 7½d.; potassium, B.P. crystals, 1s. 3½d.; granular, 1s. 3½d.; sodium, B.P., 1s. 6½d. per lb.

BUTYL CHLORAL HYDRATE is steady on a sluggish market: spot, 14 lb., 8s.; 7 lb., 8s. 3d.; 1 lb., 8s. 6d. per lb., in 1-lb. bottles.

CAFFEINE is in slow demand, with quoted prices about unchanged: pure alkaloid, 7s. to 7s. 3d.; citrate, 5s. 4d. to 5s. 8d. per lb., as to quantity.

CALCIUM LACTATE keeps up to former rates and business is fair on limited lines: spot, 1s. 1½d. to 1s. 3d. per lb., as to quantity.

CHLORAL HYDRATE is well maintained, with home makers' figures leading the market: duty-paid crystals, 2s. 11½d. to 3s. 1½d. per lb., as to quantity and packing; foreign, on spot, 3s. 3d. per lb.

CITRIC ACID (B.P. crystals).—The volume of business transacted during the week has shown a slight improvement, but conditions are still comparatively quiet: foreign material is barely 11d. per lb., less 5 per cent. for good-sized parcels. British makers quote 11½d. per lb., less 5 per cent. discount.

CREAM OF TARTAR is, if anything, a point easier this week, with good quantities of foreign on spot at 79s. per cwt., less 2½ per cent. discount. Business has remained on a very limited scale and is mostly a matter of negotiation. British makers quote 82s., less 2½ per cent. discount, for 99 to 100 per cent.

CREOSOTE CARBONATE is neglected: spot, quantities, in demijohns, 1s. 7½d.; smaller lots, up to 1s. 9d. per lb.

EPHEDRINE.—Hydrochloride is easier again owing to keen competition: spot, from 8s. 6d. to 9s. per oz., as to quantity; pure, 10s. 6d. to 11s. per oz.

GUAIACOL CARBONATE remains dull, with spot offering at 4s. to 4s. 3d. per lb., as to quantity.

HEXAMINE is meeting with a sustained demand, but prices for good-sized business are being cut very fine: free-running crystals, spot, from 1s. 9½d. to 1s. 10½d. per lb., and less for large contracts.

HYDROQUINONE.—Some material has been offering at slightly below controlled prices; otherwise the market is unchanged and a fair business is moving: ten cwt., 3s. 9d.; five cwt., 3s. 9½d.; two cwt., 3s. 10½d.; one cwt., 3s. 11d.; 56 lb., 4s.; 28 lb., 4s. 2d.; 14 lb., 4s. 4d.; 7 lb., 4s. 6d.; 1 lb., 5s. 4d., carriage paid.

LACTIC ACID (B.P.).—Competition for business continues keen and the position is none too steady: one to 99 ks., 1s. 8d.; 100 to 499 ks., 1s. 7d.; 500 to 999 ks., 1s. 6½d.; 1,000 to 4,999 ks., 1s. 6d.; and 5,000 ks. and over, 1s. 5½d. per lb., in 50-ks. carboys, carriage paid.

MERCURIALS.—Makers' prices continue steady at these figures: red oxide, 7s. 10d.; corrosive sublimate, lump, 6s. 7d.; pulv., 6s.; white precipitate, 6s. 9d.; calomel, 7s. 2d.; yellow oxide, 7s. 8d.; persulphate, 6s. 11d. per lb., in minimum cwt. lots; 1d. per lb. more for small parcels.

METHYL SALICYLATE (B.P.) is a good market, with business on a very fair scale and prices well held: one ton, 1s. 3d. up to 1s. 5d. per lb. for small parcels.

METHYL SULPHONAL does not find much business; spot quotations are barely steady: two cwt., 12s. 7d.; one cwt., 13s.; 56 lb., 13s. 5d.; small parcels, 13s. 10d. per lb.

METOL is meeting with a fair seasonal business, with quoted prices steady: one cwt., 6s. 3d.; 56 lb., 6s. 4½d.; 28 lb., 6s. 6d.; less 6s. 9d. per lb., carriage paid.

MILK SUGAR.—The quoted rates are unchanged, while business of any size would be at something less: one ton, 44s.; ten cwt., 45s.; two cwt., 46s. per cwt., in two-cwt. cases.

PARA-FORMALDEHYDE.—The business in this article is keenly competed for: 100 per cent. powder, quantities in kegs, 1s. 4d.; smaller parcels, up to 1s. 5½d. per lb.

PARALDEHYDE remains rather quiet at unchanged prices: quantities, in demijohns, 10½d.; drums, 11½d.; Winchester, 1s. per lb.

PHENACETIN.—Occasional cheaper parcels have been on the market, but generally the controlled figures are steady: crystals, ten cwt., 3s. 8d.; five cwt., 3s. 9d.; two cwt., 3s. 9½d.; and less, 3s. 10½d. per lb., with powder 1½d. per lb. extra.

PHENAZONE.—The limited business passing has been difficult to secure at full rates: crystals, ten cwt., 6s. 11d.; five cwt., 7s. 0½d.; two cwt., 7s. 2d.; and less, 7s. 3½d. per lb., with powder 1½d. per lb. extra.

PHENOLPHTHALEIN is keeping steady, but there has been only a small inquiry on the market: ten cwt., 5s.; two cwt., 5s. 1d.; less than two cwt., 5s. 2½d. per lb. Export: ten cwt., 4s.; two cwt., 4s. 1½d.; less than two cwt., 4s. 2½d. per lb., f.o.b.

POTASSIUM PERMANGANATE (B.P.) is steady and small parcel business continues, for which 5½d. to 6d. per lb. is quoted: quantities, in drums, 5½d. to 5½d. per lb.

POTASSIUM SULPHOGUAIACOLATE remains dull, with spot quoted at about 3s. 6d. per lb.

PYROGALLIC ACID is steady and business has been up to expectations: one cwt., 6s. 9d.; 56 lb., 7s.; 23 lb., 7s. 3d.; 14 lb., 7s. 9d.; 7 lb., 8s. 6d. per lb., in 7-lb. tins.

QUININE SULPHATE is unchanged at the fixed rate of 1s. 8d. per oz., for quantities.

RESORCIN.—This market continues very steady at full rates; business has been moderate: spot, 2s. 9½d. to 2s. 11d.

SACCHARIN is at former figures: 550, 50 lb., 42s.; 25 lb., 42s. 6d.; 1 lb., 43s. 6d. per lb.

SALICYLIC ACID (B.P.).—The market is firm at home makers' figures: one ton, 1s. 5d.; ten cwt., 1s. 5½d.; five cwt., 1s. 6d.; one cwt., 1s. 6½d.; small parcels, up to 2s. per lb.

SALOL is quoted at steady rates, but there is nothing but unimportant business passing: crystals, two cwt., 3s. 7½d.; cue cwt., 3s. 9d.; 56 lb., 3s. 9½d.; smaller parcels, 3s. 10½d. per lb.; powder, 1½d. per lb. extra.

SANTONIN.—Prices are about unchanged at the official figure of £52 10s. per kilo. It is understood that new channels of distribution for the Russian material have been fixed up.

SODIUM BENZOATE (B.P.) is a fairly bright item, with the demand quite good: one ton, 1s. 6½d. up to 1s. 7½d. per lb. for small parcels.

SODIUM DIETHYLBARBITURATE remains very dull, but dealers' prices are steady: spot, 9s. to 9s. 3d. per lb., as to quantity.

SODIUM SALICYLATE (B.P.).—A fairly steady demand continues, with the majority of the business going to home makers; prices are being well maintained. Home trade: powder, two tons, 1s. 10d.; one ton, 1s. 10½d.; ten cwt., 1s. 11d.; five cwt., 1s. 11½d.; one cwt., 2s.; 23 lb., 2s. 1d.; 14 lb., 2s. 3d.; 7 lb., 2s. 4d.; 1 lb., 2s. 5d. per lb., with crystals 1d. per lb. extra.

SULPHONAL, although dull, is keeping steady as quoted: crystals, 10s. 1d. to 11s. 2d. per lb., as to quantity, with powder 1½d. extra.

TARTARIC ACID (B.P. crystals) continues weak, with business by no means active and little confidence in the market. The quoted figures for foreign material are about 10½d. to 10¾d. per lb., less 5 per cent. discount, ex wharf, but business of size is a matter of negotiation, with the market favouring buyers. British makers quote 11½d. per lb., less 5 per cent. discount.

THYMOL.—The demand is still rather poor and quoted rates are difficult to obtain: synthetic, fine white, one cwt., 6s. 1½d.; 56 lb., 6s. 2d.; 23 lb., 6s. 4½d.; 14 lb., 6s. 6d. per lb.; ex ajowan seed, one cwt., 7s. 3d.; 56 lb., 7s. 4½d.; 23 lb., 7s. 6d.; 14 lb., 7s. 9d. per lb.

VANILLIN.—The limited quantities of outside material which have been discounting the controlled rates are not likely to result in any alteration in the market: ex guaiacol one ton, 13s.; ten cwt., 13s. 3d.; five cwt., 13s. 6d.; three cwt., 13s. 9d.; one cwt., 14s.; 56 lb., 14s. 3d.; 23 lb., 14s. 6d.; 14 lb., 14s. 9d. less 15s. per lb.; ex clove oil, 14s. 6d. to 16s. 6d. per lb., as to quantity, from one ton to less than 14 lb.

Crude Drugs, etc.

ACONITE ROOT is of some limited interest, with spot at 75s. and the shipment figure at 70s., c.i.f.

ANTIMONY is dull at slightly easier values: Chinese crude, spot, £19; for shipment, £13, c.i.f.; Chinese white oxide, spot, £25 10s.; for shipment, £18 10s., c.i.f.

BALSAMS.—Business is still of little importance: *Tolu*, 2s. 3d. per lb.; Peru, from 5s. 6d. per lb.

BELLADONNA.—The market has been very dull: leaves, on spot, about 60s.

BUCHU.—The market remains quiet but fairly steady: good green rounds, 1s. 1d.; dullish qualities, 10d.; ovals, 4½d. to 6½d. per 10.

CAMPHOR.—There has been but little interest in this market, with values about unchanged: slabs, 2s. 1d., spot, 1s. 11d. c.i.f.; flowers, 2s. 2d. spot and 1s. 11½d. c.i.f.; tablets, 2s. 6d. spot and 2s. 5d. c.i.f.

CARDAMOMS.—Market remains quiet: bold Ceylon-Mysore, 5s. 9d. to 6s.; mediums, 4s. to 4s. 3d.; small mediums, 2s. 9d. to 3s.; smalls, 2s. 3d. to 2s. 6d.; greens, spot, 1s. 10d.; shipment, 1s. 6½d., c.i.f.; Bombay seeds, 3s. per lb., spot.

CASCARA SAGRADA.—The market has again been quiet: 1930 peel, spot, 42s.; for shipment, in car-load lots, 36s. 6d. to 37s., c.i.f.

The landings in London during May were *nil*; deliveries, 2 tons; stock is 43 tons, against 108 tons in 1930 and 236 tons in 1929.

CASSIA FISTULA.—The spot market is bare of supplies: forward, Java, good sound plump, 21s. to 22s., c.i.f., shipment from Continent.

CIVET is quoted from 12s. to 15s. per oz. on the spot.

Production in Ethiopia during 1930 was estimated at 10,000 oz., against 20,000 oz. in 1929, 30,000 oz. in 1928, and 40,000 oz. in 1927.

CLOVES.—The market has been mostly quiet and there has been but very little alteration in values, which finish about level on the week: Zanzibar, spot, 9d.; July, 7½d.; August-October, 7d., c.i.f.; Madagascar, spot, 8½d.; July, 7½d., c.i.f.

The landings of Zanzibar in London during the week ended June 6 were 25 and the deliveries 33, leaving a stock of 731, against 1,439 in 1930 and 1,620 bales in 1929. From January 1 to date, landings of Zanzibar have been 871, against 5,845 in 1930, and the deliveries 1,148, against 4,404 in 1930. Landings of Madagascar for the week ended May 30 were 540 and the deliveries three, leaving a stock of 1,499, against 2,838 in 1930, and 555 bales in 1929. Landings of Madagascar this year to date have been 2,085, against 4,199 in 1930, and the deliveries 1,492, against 1,374 in 1930.

COCOA BUTTER is steadier this week, with prices holding: prime English, 9d. to 9½d.; Van Houten's A, 9½d. per lb., in minimum one-ton lots.

COCONUT (DESICCATED).—The market is steadier this week after the recent slump; business has been fair: fine and medium, spot, 18s. 9d.; shipment, July-August, 16s. 9d., c.i.f.

Landings in London during the week ended June 6 totalled 1,147 cwt.; deliveries, 2,350 cwt.; stock is 10,328 cwt., against 14,343 cwt. in 1930.

COD-LIVER OIL.—There has been rather more inquiry on the market this week and bids cabled have been refused by shippers, in anticipation of enhanced prices in the autumn. The tone is distinctly steady, with a tendency for values to harden. Quotations for finest non-freezing steam-refined Lofoten oil, 112s. to 113s. per barrel, c.i.f.; spot, minimum five-barrel lots, 115s. per barrel. Some brands may be slightly cheaper. Bergen report fishing has been a failure this week, the resultant output of medicinal oil being only 200 hectol; the catch of cod was 200,000. The total catch of cod to date is 39,600,000, against 60,900,000 in 1930 and 77,900,000 in 1929. The total production of medicinal oil to date is 58,655 hectol, against 78,235 hectol in 1930 and 90,546 hectol in 1929.

ERGOT.—The market has been neglected: Russian, 10d. to 10½d., spot; Spanish, 1s. 6d. to 1s. 7d., spot.

GELATIN.—With prices about unchanged on quotation, the market has been dull throughout the week: gold leaf, 2s. 1d.; silver leaf, 1s. 8d.; bronze leaf, 1s. 5d. per lb., in cwt. cases.

GINGER is unchanged on quotation with business slow: West African, spot, 22s.; for arrival, sellers, 21s., c.i.f.

Landings in London of West African during the week ended June 6 totalled 380 bags; stock is 9,931 bags, against 7,332 bags in 1930.

GUM ACACIA.—Prices are quoted about unchanged, with the market nearly lifeless: Kordofan, cleaned, 34s.; natural, 33s.; Talha, 19s. per cwt., c.i.f. Persian insoluble Shiraz, cleaned, 20s. to 22s., c.i.f., nominal.

HYDRASTIS.—Very little business is reported, with the spot market barely 6s. per lb.

IPCACUANHA.—The market is still very dull: Matto Grosso, spot, about 6s. 8d. to 6s. 9d.; Minas, about 6s. spot; Cartagena, 5s. 9d. per lb. The market is rather easy at these figures.

The landings in London during May totalled 8 cwt.; deliveries, 13 cwt.; stock is 327 cwt., against 355 in 1930, 105 in 1929, and 351 cwt. in 1928.

JALAP.—The market has remained slack: 13.6, 1s. 4d.; 16.6, 1s. 9d. per lb.

LIME JUICE.—A better demand is reported, with new crop, pale green top pulp, selling at 2s. 10½d. to 3s. 1½d. The market is very steady and tends to harden.

MENTHOL.—The market is still very quiet and is rather weak: K/S brands, about 13s. 6d. to 13s. 7½d.; shipment, April-June, about 12s. 9d.; October-December, 12s. 7½d.

MERCURY appears to have settled down at the recently reduced figure: official quotation is £16 15s. per bottle, f.o.b.; spot, in the region of £17 per bottle for quantities.

PIMENTO has been dull all the week; the market is quoted unchanged on spot at 3d.; shipment, sellers for July-August at 23s. 6d., c.i.f.

PYRETHRUM.—The market has been quiet but is fairly steady: Japanese, old crop, 82s. 6d. to 84s., spot; c.i.f., 70s.; new crop, 66s. 6d. to 67s. 6d., c.i.f.

Exports from Kobe during January-March 1931 totalled 1,070,000 lb., valued at \$163,000, a decrease of 467,000 lb. (\$152,000) for the same period in 1930.

PEPPER.—Although rather quiet early on, the market shows a little more life towards the close, with the tone steady and values about unchanged on the week: Lampong, spot, 5½d.; May-July, 4½d.; August-October, 4½d.; Telli-cherry, spot, 5½d.; Aleppy, spot, 5½d.; June-July, 49s.; c.i.f. White Muntok, spot, 8½d.; May-July, 7½d.; August-October, 6½d., c.i.f.

RHUBARB.—The market has been generally quiet: Shensi, flat and round, 4s. 6d. to 4s. 9d.; Canton, 2s. 9d. to 2s. 11d.; high-dried, rough round, 1s. 1d. to 1s. 3d.; flat, from 1s. 4d.

The landings in London during May totalled 192 cwt.; deliveries, 89 cwt.; stock is 616 cwt., against 582 cwt. in 1930 and 236 cwt. in 1929.

RUBBER.—The market has been dull throughout, with prices unchanged; No. 1 standard ribbed smoked sheet, sellers, spot, 3½d.; June, 3½d.; July-September, 3½d.; October-December, 3½d.; U.K. stocks, 138,668 tons, against 104,750 tons.

SAFFRON.—The market shows a good recovery after the recent weakness; business has been moving and the market is now steady: prime B.P., 42s. 6d. to 43s.; extra B.P., 39s. 6d. to 40s.; super B.P., 37s. 6d. to 38s. per lb.

SARSAPARILLA.—The market has been slow: genuine grey Jamaica, spot, about 1s. 1d. to 1s. 2d. per lb.

The landings in London during May totalled 66 cwt.; deliveries, 52 cwt.; stock is 478 cwt., against 273 cwt. in 1930 and 46 cwt. in 1929.

SEEDS.—**ANISE.**—Spanish, 47s. 6d.; Bulgarian, 32s. 6d.; Russian, 30s. per cwt., spot. **CANARY.**—Market quiet; Mazagan, 21s.; Tangier, 20s.; Casablanca, 19s. 6d.; Larache, 20s., and Kenitra 18s. 6d., spot. **CUMIN.**—Malta, spot, 55s.; Morocco, old crop, 50s.; new crop, 45s. per cwt.; shipment market is firmer at 31s., c.i.f. **CORIANDE.**—Spot, 9s. 6d. for ten-ton lots; shipment is 10s., c.i.f., with offers at 9s. 9d., c.i.f., early in the week. **FENUGREEK.**—Old crop, 16s. 6d., spot; shipment, new crop, 11s., c.i.f.; Tunisian, 17s., spot. **CARAWAY.**—Dutch, spot, cheaper; new crop, 26s., and old crop 23s. **MUSTARD.**—English is 22s. to 31s. per cwt., according to quality.

SENEGA.—The market has been of but small interest: spot, about 2s. 3d.; the shipment figure has gone back to 2s., c.i.f.

SENNA PODS.—There has been more interest in Tinnevely pods, hand-picked, with holders firm. Alexandrian pods are steady but rather quieter: finest selected, from 5s. 6d.; seconds, 3s. 6d.; mediums, 1s. 9d. to 2s.; ordinary manufacturing, 4½d. to 5d. per lb. as to quality.

The landings in London during May totalled 372 bales; deliveries, 307 bales; stock is 2,155 bales, against 2,510 bales in 1930 and 1,602 in 1929.

SHELLAC is easier, with the market still very subdued: spot, TN orange standard quality, 70s.; fine orange, 80s. to 145s.; pure button, 87s. 6d.; for delivery, TN sellers, August, 64s. 6d.; October, 65s.; for arrival, TN sellers, June-July, 60s., c.i.f.

TRAGACANTH.—For the first time for a considerable period several good parcels have, it is reported, been cleared for shipment to America; spot values are steady: fine ribbon, £14 to £22; No. 1, £29 to £31; ordinary, £27 to £23; seconds, £23 to £26; thirds, £18 to £22; fourths, £10 to £16; thick white Persian leaf, £7 to £9 10s. per cwt.

The landings in London during May totalled 964 packages; deliveries, 753 packages; stock is 11,451 packages, against 13,325 in 1930 and 11,405 in 1929.

TURMERIC.—Good Madras finger is quoted at about 24s. spot and at 17s. c.i.f.

WAX (VARIOUS).—A modest volume of business is being transacted in these products; quoted prices are unchanged

except for Candelilla, which is easier; JAPANESE, on spot, 49s. per cwt.; CARNAUBA, fatty grey and chalky grey, 75s.; medium yellow, 140s.; fine yellow, 175s. per cwt., spot; CANDELILLA is easier at 65s. per cwt.; SPERMACE, 10d. per lb., spot; PARAFFIN, 17s. 6d. to 27s. 6d. per cwt., as to melting point; CERESINE, 35s. to 80s. per cwt., as to colour and melting point; BEES, bleached, discs, £7 5s.; slabs, £7 2s. 6d.; yellow, refined, £6 5s.; crude yellow, £5 5s. per cwt., spot.

Imports of carnauba into the U.S. during the period January-March 1931 totalled 2,670,312 lb., against 1,796,591 lb. during the same period of 1930.

Essential Oils

RATHER more interest has been shown in isolated instances this week. Lemon is dearer on a much better market. Bergamot shows some recovery. Almond is slightly easier. Caraway and bois de rose are a shade lower. Genuine distilled lime is scarce on spot. Patchouli is dull and somewhat cheaper.

ALMOND is a shade easier on spot with foreign (s.a.p.) quoted round about 6s. 9d. per lb.

ANISE (STAR) RED SHIP.—The market has been particularly quiet, but values are just about maintained; in leads spot, 2s. 1d.; c.i.f., about 1s. 8d. to 1s. 8½d.; drums, 1s. 5½d.; and tins, 1s. 6½d.

BERGAMOT is very irregular on spot with 33 to 40 per cent. somewhere in the region of 6s. to 5s. 6d. per lb. The shipment quotation is inclined to be firmer after the recent declines, and is now not less than 5s. 6d. c.i.f.

BOIS DE ROSE is rather cheaper, with spot offers at about 3s. 6d. per lb. for Cayenne.

CAJUPUT is a little steadier, but the market is still quiet: spot, about 2s. 2d. to 2s. 3d. per lb.; for shipment, 1s. 6d. c.i.f.

CARAWAY is a shade cheaper, and now fairly steady with Dutch double-distilled on spot at 6s. per lb.; crude, 5s. 7d. spot.

CASSIA remains dull with spot offers at 3s. per lb. for oil passing B.P.; forward, about 2s. 7d. to 2s. 8d. c.i.f.

CINNAMON LEAF is unchanged with the market showing little life; spot, about 3s. 6d.; forward, 2s. 8d. c.i.f.

CITRONELLA.—Java is steady on spot at 2s. per lb., and is of some interest: forward, 1s. 11d. c.i.f.; Ceylon is held on spot at 1s. 7d. per lb., with 1s. 3d. the shipment figure.

EUCALYPTUS is a quiet market with values just about maintained: 70 to 75 per cent., about 1s.; 80 to 85 per cent., about 1s. 2d. per lb.

GERANIUM.—There is not much interest in this market: Bourbon, spot, 15s. to 15s. 6d.; shipment, 13s. 10d. c.i.f.; African, spot, 16s. 6d. to 16s. 9d.; shipment, 15s. 6d. to 15s. 9d.

JUNIPER BERRY, B.P., is a shade dearer on spot at close up to 5s. per lb.

LAVENDER is steady with French 38 to 40 per cent. on spot at 8s. 6d. to 8s. 9d. per lb.; shipment is dearer at 8s. 5d. per lb. c.i.f.; 36 to 38 per cent., 8s. to 8s. 3d. per lb., spot.

LEMON.—The market has advanced owing to firmer shipment conditions: Sicilian, hand-pressed, spot, fully 3s. to 3s. 4d. per lb. is being asked. Shipment offers are also at fully 3s. c.i.f., subject to acceptance; machine-made, spot, 2s. 6d. to 2s. 7½d.; forward 2s. 4d. to 2s. 6d. per lb., c.i.f.

LIME.—The position is unchanged with genuine distilled on spot very scarce and firm as quoted at 40s. per lb.; hand-pressed, from 50s. spot.

ORANGE.—The market remains dull, and is somewhat irregular; Sicilian, spot, about 6s. 6d. per lb.; forward, about 6s. c.i.f. Rumours of advances in values are not confirmed.

PALMAROSA.—The market is still neglected: spot, about 8s. 3d.; shipment, 7s. 8d. per lb., c.i.f.

PATCHOULI is slightly easier with Singapore on spot offering at about 13s. 6d. per lb.

PEPPERMINT.—There has been more spot business about, and the market for Japanese demethylised is now steady at 4s. 3d. sellers (buyers at 4s. 2d.); for shipment, July-August, 4s. 2½d. sellers, and October-December, 3s. 11d. c.i.f. America, spot, 7s. 3d. to 8s. per lb., in tins, as to brand; shipment, 6s. 6d. to 6s. 9d. c.i.f.

SASSAFRAS remains dull and about unchanged on quotation: spot, 4s. 4d. to 4s. 10d. per lb., as to origin.

SPEARMINT has been of small interest: spot, in the region of 10s. per lb.; for shipment, 8s. 4d. c.i.f.

The following arrivals have taken place from the countries indicated during the period June 10 to 16 inclusive: Almond (Fr.) 5 cs.; anise, star (Hong-K.) 42 pkgs.; bergamot (It.) 6 cs.; bitter almond (Nthlnds) 1 cs.; cassia (Hong-K.) 15 cs.; cedarwood (U.S.) 5 cs.; citronella (Cy.) 1 dm., (Jv.) 2 dms.; eucalyptus (Gy.) 2 dms.; geranium (Fr.) 2 dms.; lemon (It.) 9 cs.; lemongrass (Ind.) 1 dm.; lime (Jam.) 2 cs.; orange (Fr.) 2 cs.; patchouli (Straits) 3 cs., (Fr.) 13 cs.; peppermint (U.S.) 1 dm., (It.) 20 cs.; various (Fr.) 6 cs., (U.S.) 2 cs.; ylang-ylang (Fr.) 2 dms 5 cs.

Industrial Chemicals, etc.

A MODERATE volume of business continues to be transacted in these products and prices are holding fairly steady. FORMALDEHYDE is cheaper owing to keen competition. ACETIC ACID.—The market is steady and a fair volume of business is moving: 80 per cent., technical, £36 5s.; 80 per cent. pure, £37 5s. per ton, in barrels; glacial, pharmaceutical, 99 to 100 per cent., £58, in glass demijohns; glacial, in barrels, £48 per ton, carriage paid in U.K. ACETONE, B.G.S., is a bright feature, although there is keen competition for any big orders: £60 to £62 10s. per ton, in drums, carriage paid in U.K., and less for large quantities. AMMONIA (ANHYDROUS) meets with a steady flow of limited-sized orders, with home makers doing well: 99.95 per cent. material, in loaned drums, 9d. to 1s. per lb., carriage paid, and less for important contracts. AMMONIUM CHLORIDE is steady as quoted by dealers: grey galvanising, £21 7s. 6d. per ton, in casks, ex store; slightly less for contracts. ARSENIC remains dull, with prices unchanged: Cornish white powdered, £20 10s. per ton, f.o.r. mines; Mexican, £17 7s. 6d.; Continental £17 10s.; Australian, £16 15s. per ton, c.i.f. U.K. BLEACHING POWDER is steady at makers' prices: 35 to 37 per cent. chlorine, £7 per ton, in four-ton lots. COPPER SULPHATE is dull, with Continental offering at about £18 10s.; British, about £21 f.o.b., casks. FORMALDEHYDE meets with quite a good demand at very keen prices: 40 per cent., by volume, £27 to £27 10s. in casks, ex store; slightly lower prices for big quantities. ISOPROPYL ALCOHOL is a bright market and prices are holding quite steady: first quality, ex acetone, 10s. to 10s. 6d. per gallon, in drums, carriage paid; ex "cracked petroleum" qualities, 6s. 6d. to 8s. 6d. per gallon. LEAD ACETATE is dull and irregular: brown, £31 7s. 6d.; white, £32 10s. per ton, in casks, ex store. LITHOPONE is steady and there is a moderate business passing: 30 per cent. Continental red seal, £18 10s. per ton, ex store; forward, £18 18s. per ton, c.i.f., less rebate of £2 per ton. OXALIC ACID is steady at the quoted price which was recently advanced to £34 per ton for one-ton lots; cwt. lots, 35s., ex store.

Fixed Oils, etc.

DISTINCTLY quiet markets continue to be reported, while values are holding somewhat better after the recent continued declines. LINSEED (raw, naked) has been fairly steady, with a moderate business moving; forward positions are somewhat dearer: on spot, 15s. 9d.; June, 15s. 9d.; July-August, 15s. 9d.; September-December, 15s. 10½d. OLIVE is still a slow market and values are again easier: edible, 4s. 10d.; B.P., cheaper at 3s. 11d. per gallon, in 40-gallon barrels. LITHOPONE is steady and there is a moderate business passing: 30 per cent. Continental red seal, £18 10s. per ton, ex store; forward, £18 18s. per ton, c.i.f., less rebate of £2 per ton. OXALIC ACID is steady at the quoted price which was recently advanced to £34 per ton for one-ton lots; cwt. lots, 35s., ex store.

Coal Tar Products, etc.

ENQUIRY for cresylic acid is sustained and prices, as quoted, are very steady. Business in carbolic acid crystals has not been so good. The demand in other directions remains limited, except that there is good enquiry on pitch for next season. BENZOL.—A fairly bright market is reported and quoted prices are steady: Standard motor 90's, 1s. 4d.; per gallon, in tank wagons, ex works; pure, 1s. 6d. per gallon. CARBOLIC ACID CRYSTALS (39° to 40° C.).—The market has been rather quiet, but prices are maintained at controlled rates: 100 tons, 5d.; 50 tons, 5½d.; 20 to 25 tons, 5½d.; 10 tons, 5½d.; five tons, 5½d.; two tons, 5½d.; one ton, 5½d.; 10 cwt., 6d.; smaller lots, 6½d. to 6¾d. per lb., in drums with over-casks, carriage paid or f.o.b.; crude carbolic 60's, 1s. 2d. to 1s. 3d.; per gallon, naked at works. CRESYLIC ACID.—A very satisfactory enquiry continues in

this market, especially for export: the tone is steady throughout; pale 98 to 100 per cent., 1s. 6d. to 1s. 8d.; dark 95 per cent., 1s. 5d.; special qualities, 2s. 1d. to 2s. 2d.; per gallon, ex works. American duty-free acid 1s. 6d. to 1s. 8d. per gallon, f.o.b. CREOSOTE OIL is meeting with a rather better demand, and the market is holding steady: quoted from 4d. to 5d. per gallon, as to quantity and district. KEROSENE.—The market continues at firmer rates and is quiet: water white, 11½d.; standard white, 10½d. per gallon, in barrels, ex wharf, London; in bulk, 3d. per gallon less. MOTOR SPIRIT.—There is no change in prices to record: business is normal; No. 1, 1s. 2½d.; No. 3, 1s. 0½d.; per gallon, for U.K., except North Scotland, which is 1d. more, delivered in bulk; two-gallon tins, 1½d. per gallon more, except in inner London zone, 1d. extra. NAPHTHALENE is easier on a dull market; flakes, £11; crystals, £10 5s. per ton. PITCH.—Tentative enquiry for next season is fair: quotations are unchanged; medium-soft, 42s. 6d. per ton, f.o.b. East Coast. PYRIDENE is easier with business dull: 90 to 160, 3s. 1d. to 3s. 3d. per gallon. SOLVENT NAPHTHAS.—A fair business is being done with the market steady; 90 to 160, 1s. 3d.; heavy, 90 to 160, 1s. 1½d. per gallon, naked at works. TOLUOL has been rather quiet with quoted prices unchanged: commercial 90's, 1s. 8d. to 1s. 9d.; pure, 1s. 11d. per gallon, ex works. XYLOL is of very little interest: commercial, 1s. 8d. to 1s. 9d.; pure, 1s. 11d. per gallon, ex works.

World's Vanilla Crops

H. MAYER SENIOR, LTD., last May (*C. & D.*, May 17, 1930, page 618) estimated the crop for the 1929-1930 season as approximately 790 tons, and they now report that this figure has been exceeded by at least 100 tons. The actual figures of the 1929-30 crop can now be given definitely as follows:—

	Tons		Tons
Madagascar ...	460	Mexico ...	95
Comoro ...	165	Tahiti ...	60
Réunion ...	60	Seychelles ...	5
Nossi-be ...	42	Java & Ceylon, etc.	15

In spite of the present low values no particular expansion of consumption can be recorded, and for this the general depression is, no doubt, largely accountable. Parcels of quality, especially of the Réunion, Bourbon and Mexican varieties, have maintained their position, but a super-abundance of badly-cured Comores and Madagascars has weighed heavily upon the market. Various drastic remedies to improve the situation and get back to a remunerative level have been proposed and discussed in circles which take a genuine interest in the future of the article. Amongst such specifies a suppression of a season's crop or prohibition of the shipment of badly-prepared goods, which ultimately can only find an outlet in a prepared form, may be suggested. The Government of the largest producing centre, namely Madagascar and its dependencies, has shown its readiness to act on the latter proposition, but there are various technical obstacles in the way of the effective carrying out of such a plan, of which the difficulty of obtaining sufficiently reliable and disinterested experts on the spot appears to be foremost.

Trade-Mark Applications

The figures in parentheses refer to the classes in which the marks are grouped. A list of classes and particulars as to registration are given in "The Chemist and Druggist Diary," 1931, p. 345.

(From "The Trade Marks Journal," June 4, 1931.)

- "NAPP" on oval shape; for medicated preparations (3). By H. R. Napp, Ltd., 3 & 4 Clement's Inn, London, W.C.2. 517,855.
- "OKASA"; for all goods (3). By Okasa G.m.b.H., 85-86 Alte Jakobstrasse, Berlin, S.14. 520,234.
- "CATALSAN"; for medicinal chemicals (3). By Bio-Chemische Laboratorien A.G., Villa Cadeau, Piazza Nuova, Locarno, Switzerland. 520,411.
- "KREKTOL"; for all goods (3). By W. A. Aitchison, 5 Oxford Road, Ansdell, Lytham, Lancs. 521,054.
- "JOXTAN"; for medicinal chemicals (3). By G. C. Sharp, 4-6 Watson Street, Glasgow. 522,435.
- "SPIROGYL" on strip label design; for an external medicine for diseases of teeth and gums (3). By Wetial, 38 rue Mont-Thabor, Paris. 521,213.

Correspondence

Letters should be written on one side of the paper only. Correspondents may adopt an assumed name, but must in all cases furnish their real name and address to the Editor.

Varying N.H.I. Prescriptions

SIR,—Doctors' prescribing is not, I should imagine, at all likely to be regarded as excessive, because chemists may have thought fit to vary the prescriptions. Any difference due to such variation would be altogether too trivial to cause any material increase in the doctors' averages. What seems to me much more likely to happen is that the chemists who varied the prescriptions would get into trouble at the pricing offices and be called to account by the Insurance Committees concerned. Your contributor who directs attention to this matter (*C. & D.*, June 13, p. 689) appears to be somewhat at sea on the subject, though he is quite right when he advises that N.H.I. prescriptions should not be varied without the consent of the practitioners who wrote them.—Yours, etc.,

KRITES (16/6).

Chemists' Charges

SIR,—I have to thank Rosa (*C. & D.*, June 13, p. 697) for his kindly criticism of my letter, and would answer his first query in traditional Scottish fashion by asking him another. Has he read your quotation (p. 689) of Captain Austin Hudson's remarks and your observations thereon concerning the same "Bill"? My reply to his second query is summed up in the words, "They say what they say; let them say." I, of course, do not mean that we should advertise that we intend increasing our charges; rather would I suggest individual effort in this direction (and I may add that such a movement is already unofficially in progress with good results). If all joined in a general reorganising of professional charges, progress would be more apparent. Practically every day we hear remarks regarding medical, dental and legal charges; yet these professions rank much higher than pharmacy in public opinion—and why? Simply because pharmacy renders professional service at less than labourers' wages. I do not hold an inflated idea of professionalism, but I do maintain that our training and responsibility are on a par with other professions, and that it depends on ourselves what our remuneration should be.

Yours truly,

THE THISTLE (16/6).

Pharmacy Still at the Cross-Roads

SIR,—One cannot regard the present pharmaceutical battle front as other than interesting, although quiet; and it leads one to think that the time is now ripe to push forward quite definitely into the arena of pharmaceutical politics the much-needed reform in the present anomalous relative position of medicine and pharmacy. This unsatisfactory state of affairs has received some prominence through the recent discussion in the House of Lords, but the noble lords' views on the position were found to be a little conflicting, due I think to a little haziness on their part as to the attitude of the medical profession. Our esteemed president is reported as having stated that it is unlikely another opportunity for pharmacy to help itself will arise for many years; but surely we are not going to wait on circumstances before we push forward our claims. Can we be satisfied with such small advantages as the Society's amendments give us? After all, they are of very little benefit to the pharmacist in business. I cannot subscribe to the view that we cannot get all we want; I insist that our wants shall be nothing more nor less than the full recognition of a status in pharmacy, and that all medical prescriptions should be dispensed by pharmacists or under their supervision. If such a status was recognised we might more easily be induced to forgo our rights or privileges as sellers

of poisons, and it is possible that a satisfactory compromise could then be arrived at between the Society and those who are at present our greatest opponents in regard to the vexed question of poisons. There is another reason why we should make a move in this direction, and that is the tendency among our medical friends in many areas to setting up what may be called an all-in medical and pharmaceutical service for that part of the community not provided for by the N.H.I. Acts. If these arrangements spread, as they appear to be doing, they may very easily become an accepted part of any future legislation to the detriment of pharmacy. It is, therefore, a situation to be watched. The young men should be stirred up into some sort of enthusiasm and to take their part in this reform. I feel that if an immediate and increased opposition was put into action, the Pharmacy and Poisons Bill could now be killed, for as far as one can gather from the all-too-secret archives of those in authority, a motion already stands for its rejection. A unanimous unconditional rejection of the Bill is the urgent need. The immediate future policy of the Society should be the promotion of its own Pharmacy Bill. If the architects, the osteopaths, and even our friends the opticians can find the openings for their Bills, surely a Pharmacy Bill will stand an equal or even better chance. What such a Bill should contain is a matter for later consideration. It is to be hoped that the present interest will not lapse into the apathy so often deplored.

Yours, etc.,

FRANK E. S. CLARKE.

Newport, Mon.

Competition

SIR,—For the information of "Olden" (*C. & D.*, June 13, p. 698), I am writing to say that there are five private chemists in the district catered for by the four co-operative societies mentioned in my letter. Regarding his dubiety about doing D. and P. work at home: I have been doing this work now for fifty-four years. It was begun when there were the master, a junior assistant and a boy. Now, for four months of the year, practically the whole time of two members of the staff is devoted to D. and P. work. I am in a town which is not patronised by tourists or holiday visitors, so I am dependent entirely on local amateurs for work. Nevertheless I have developed as many as 198 spools and made 1,000 prints in one day—not an eight-hours day, I admit. One pleasing feature is that many of my customers bring home their holiday pictures for me to develop instead of getting them done at pleasure resorts. I do not attempt the quick service attempted nowadays; but spools brought in by 1.30 p.m. are ready for the customer by 11 a.m. next day. If anyone does really require prints in a hurry I can supply them within two hours—at a price. During the remaining eight months of the year, when photographic business quietens down, there is plenty of work for the staff to do in the way of keeping up the stocks of packed goods.—Yours, etc.,

STICK AT NOTHING (16/6).

A Criterion of Parliamentary Candidates

SIR,—As there is the possibility of a general election in the near future, it would be very interesting to know what the Pharmaceutical Society intends to do regarding candidates. The results last time were not very encouraging so far as pharmacy was concerned, chiefly due to candidates contesting seats where there was not the remotest chance of success. Our good friend, Mr. Bennett, the only pharmacist in Parliament, did not get in on a pharmaceutical "ticket," but he has done excellent work for pharmacy in connection with the

Bill, and it is to be hoped that he will again be very successful on this next occasion, so that he may continue in the good work of safeguarding our interests. The opportunity of getting additional representatives into the "House" at an election such as this is most valuable, and it is to be hoped that the Society will make good preparations early, and that the choice of candidates will be very wise. Moreover, I think it would be best for all concerned if the Council took the members into their confidence in this matter, and in this way much help could be afforded it in this important work, as was done in the case of the campaign against the Bill. There is nothing to be gained by discussions in secret; it is better for the Council to let their "constituents" know exactly what they are doing for them.—Yours very faithfully,

THOMAS C. MILLER.

Dunfermline.

The Chemist and the Community

SIR,—I take the following remarks of Sir William Arbuthnot Lane from one of our more thoughtful weekly papers:—

"When the Pharmacy and Poisons Bill was before the House of Lords, I expressed the hope that their lordships realised that the way to encourage the housewife to take essential hygienic measures was to have the effective disinfectants available—with the proper safeguards proposed in the Bill—in the ordinary shops where she did her daily shopping. Now that the Bill is about to be considered on the second reading in the House of Commons, we are being told that it will enable children to obtain poison out of penny-in-the-slot machines and murderers to obtain arsenic without risk of discovery. . . . There are adequate safeguards in the Bill to prevent misuse through ignorance and, as far as practicable, through criminal intent. The absolute prevention of deliberate criminal use is, unfortunately, beyond the powers of the Government or even of the Pharmaceutical Society. . . ."

No doubt it is true, as the writer suggests, that if a person is bent upon the use of poison for criminal purposes he will find means to carry out his plans—automatic machines or not. Only last week a man whom I knew well by sight purchased a few harmless drugs and then asked for four pennyworth of cyanide of potash. This I refused him on some polite pretext. Imagine my feelings on reading, two days later, that this man had committed suicide by means other than poison. We chemists do our best in the public interest; the law should strengthen our hands, not add to our difficulties.—Yours truly,

L.E.X. (15/5).

Subscribers' Symposium

For interchange of opinion among "C. & D." readers and brief notes on business and practical topics.

Lotio Hydrargyri Flava

The laconic "Mix" of the B.P. 1914 should give way to directions to place a portion of the lime water in the bottle first, add the mercuric chloride in fine powder, and, after vigorous shaking, add sufficient of the lime water to complete. This lotion should be freshly prepared, for if kept some time the yellow precipitate sticks so firmly to the bottom and sides of the bottle that it resists shaking.—*Abel Scholar* (17/6).

Our Backward Pharmacopœias

In view of preparation of the new edition of the British Pharmacopœia, I have drawn up a list (which could be extended) of remedies in common use in the early 'sixties, but not deemed sufficiently important to be included in the 1864 B.P. They are:—Acid. carbolic., actæa racemosa, aloinum, ammon. brom., chlorodyne, cinchonine salts, effervescent granules, hydrogen peroxide, hypophosphites, pepsin. It is remarkable that after sixty-seven years ammon. brom., hydrogen peroxide, pepsin and granular effervescents should still be such favourites.—*The Thistle* (9/6).

Legal Queries

P. D. (29/5).—The wording on the labels and cartons for Glycerin Honey and Lemon Linctus, and for Bronchial Mixture, does not involve liability to medicine-stamp duty. On the other hand, the inclusion of the words "stiff joints" on the carton of the Household Embrocation renders this article liable to medicine-stamp duty, while the claim "prevents illness" on the carton of the Compound of Syrup of Figs renders that article dutiable.

H. W. J. (26/5).—Must an apprentice be insured under the National Health Insurance and the Unemployment Insurance schemes? What is the significance of the seals on articles of apprenticeship, and how should they be affixed? [The apprentice must be insured under both schemes, unless he is under the age of sixteen or does not receive any money payment. Articles of apprenticeship are usually in the form of a deed or "indenture," an essential formality in the execution of which is the sealing. It is the existence of the seal which constitutes a document a deed. Formerly wax seals were invariably used; but nowadays it is usual to affix adhesive wafer seals before the document is "signed, sealed and delivered" by the parties.]

Miscellaneous Inquiries

When samples are sent particulars should be supplied to us as to their origin, what they are, what they are used for, and how. We do not undertake to analyse and report upon proprietary articles nor to publish supposed formulas for them.

D. M. (11/86).—PRESCRIPTION CHARGE.—The following is the method of pricing the prescription according to the C. & D. costing system:—

		d.
Medinal	... gr. 80	21.0
Syr. aurant.	... 3j.	6.0
Aq. chlorof.	... ad ʒviij.	7.0
Container	... ..	2.0
Fee	... ..	8.0
		44.0

Charge 3s. 8d.

B. T. (19/5).—SILVER FISH.—The best method of control is to make free use of pyrethrum powder in, and about, the haunts of the insect. The powder should be blown or otherwise inserted into the hiding places of the silver fish, and should also be sprinkled freely outside their lurking places in such a way that it would be impossible for the insects to emerge without coming into contact with it. This treatment may have to be repeated several times at intervals of from a few days to a week.

Retrospect of Fifty Years Ago

Reprinted from

"The Chemist and Druggist, June 15, 1881

Storing Electricity

A great deal of interest has been excited during the past few weeks concerning a "marvellous box of electricity," sent from Paris by M. Faure, who had invented its construction, to Sir William Thomson, of Glasgow, the eminent physicist. . . . He (Sir William Thomson) sees in it "a realisation of the most ardently and unceasingly felt scientific aspiration" of his life, an aspiration which he had scarcely dared to expect or to hope to live to see realised. Sir William Thomson finds that a Faure cell loses no appreciable energy within ten days. It will have to be tested for a longer period before it is known how long such a cell will store the force. . . .

Owing to pressure on space, this week's instalment of the C. & D. Commercial Compendium is held over.

30 YEARS AGO

It was often said that competition was bound to force down the Sales of

HOWARDS' TASTELESS SODII BICARB.

So far from this being the case, the average Sales to-day show a

50% INCREASE
over those of that period.

Its purity and freedom from unpleasant taste make it ideal for dispensing and for household use, and the continuously increasing Sales prove how highly its beautiful quality is valued all over the world.

FAMOUS for over A CENTURY

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Fine Chemicals Opium Derivatives

ALOID	DIAMORPHINE	LEPTANDRIN
APOMORPHINE	EMP. CANTH. LIQ.	MORPHINE
ATROPINE	EPHEDRINE	OPIUM
BISMUTH SALTS	ERGOTIN	PODOPHYLLIN RESIN
CAFFEINE	ESERINE	SALICIN
CANTHARIDIN	ETHYLMORPHINE	SANTONIN
CAPSICIN	GINGERIN	SCAMMONY RESIN
CHLOROFORM	HYOSCYAMINE	STRYCHNINE
CHRYSAROBIN	JALAP RESIN	VERATRINE
CODEINE		

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FOR MEN AND WOMEN
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"SALURIC SALT"; "CRYSTAL SPRING" Health Salt;
Lime Juice & Sulphur Salts, Packed Salines, Liver Salts,
Health Salts, &c.—All suitable for "own name" lines.

Up-to-date Showcards supplied with all orders. Address enquiries to
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DUTCH DROPS

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The Chemist's Brand
LIQUORICE JUICE

**SOLAZZI JUICE IS GUARANTEED
TO CONSIST ENTIRELY OF THE
CONDENSED EXTRACT OF FINEST
CALABRIAN LICORICE ROOT
WITHOUT ANY ADMIXTURE WHATEVER**

Should any enquiry as to the composition of SOLAZZI be received from the public, Chemists are asked to emphasise the fact that SOLAZZI is not included in the category of Secret Remedies, and that the accompanying guarantee obtains with every parcel.

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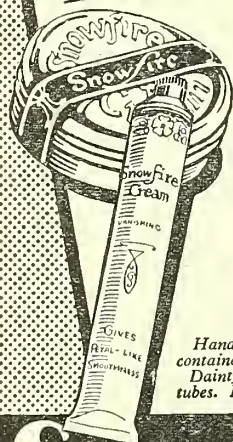
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Snowfire Cream—always in demand, always making new friends, is a profitable line to handle. Women everywhere are recommending it one to another. Their enthusiasm means repeat orders and extra profits for you. Get in good stocks now. Manufactured by F. W. Hampshire & Co. (1927) Ltd., Sunnysdale Works, Derby.

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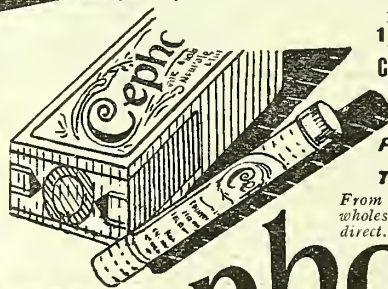
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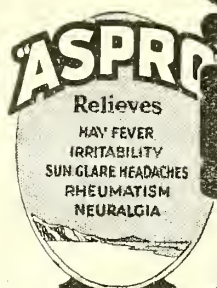


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50% increase in sales—that's the 'ASPRO' record for the last six months. Refreshing, isn't it, in these bad times, to hear of progress. We take this opportunity of thanking all chemists for their help and co-operation. It has made this success possible—working in conjunction with our sales-producing advertising campaigns. We believe that life is progressive—business is progressive—the whole world could be progressive when dominated by continuous action based on progressive methods. To prove it we are CONTINUING OUR SUMMER ADVERTISING on LAST WINTER'S FULL ADVERTISING SCHEDULE. Further, we have just received from the press one of the most artistic window shows yet. We are also issuing FREE—practical business helps in the way of rubber cash mats for your counter (see illustration). Both window show and cash mats (if you have not already received them) will be gladly sent free on your request.

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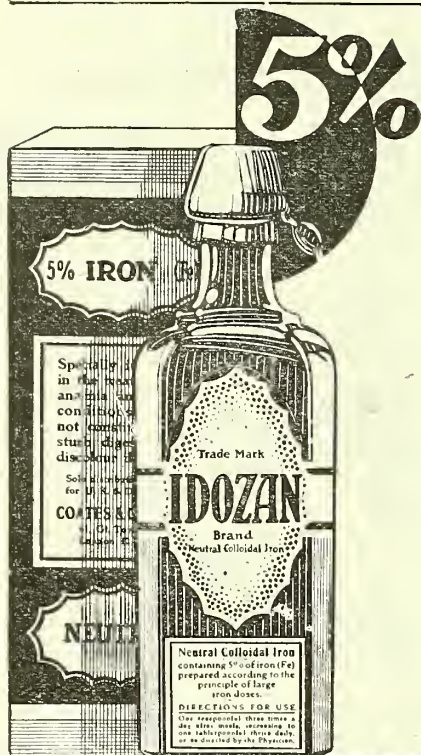
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in readily assimilable form
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Does not constipate, derange the stomach or discolour the teeth.

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HENRY'S CALCINED MAGNESIA

Continues to be prepared with scrupulous care, in the greatest chemical purity by

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DRUMMER DYES

Now in **POWDER** . . .
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no increase in price . . 4^p

... Win More Sales With "WINNING COLOURS" Dyes!

MORE AGENTS STILL WANTED

Send to-day for full particulars, and have "Winning Colours" in the race for sales.

Unequalled for strength and beauty of colour, with correctness of tone, these well-known dyes will bring you many repeat sales. They attract customers to your shop, for, once tried, "Winning Colours" Dyes are always used.

Particulars of this profitable agency, window display material, etc., will be gladly supplied. Convincing and attractive advertisements, which appear in the National Dailies from time to time, will stimulate the public interest, and bring you increased demand.

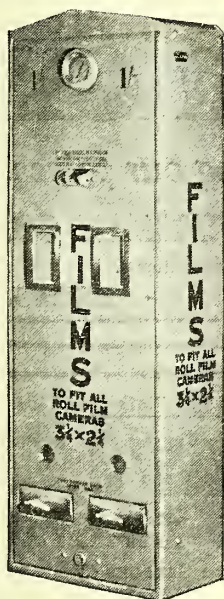
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Two Column for
2 Different Makes
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TO FIT ANY MAKE
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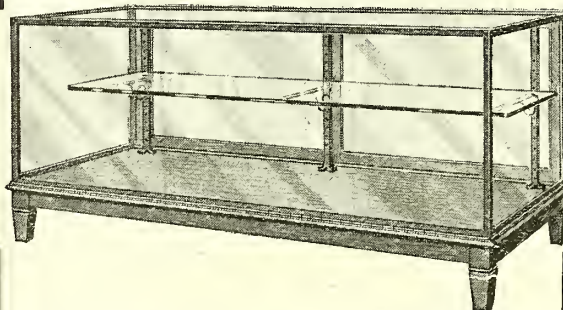
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GLASS COUNTERS BRING MORE TRADE



No. G.S.F. 2920. A soundly constructed Display and Serving Counter made in our own works at Holloway Road—6 ft. x 3 ft. x 2 ft. glazed new $\frac{1}{4}$ " drawn plate glass top, front, and ends. Clear glass sliding doors at back. Interior fitted 1 row of shelves 12" wide, brown bronze bars and brackets.

DEFERRED TERMS
An initial payment of 18/10 secures this counter, and 11 further equal monthly payments of the same amount make it your own complete property.

£10-15-0

Cash Price. Ex. Works.

Send for our New List No. C.D.1260.

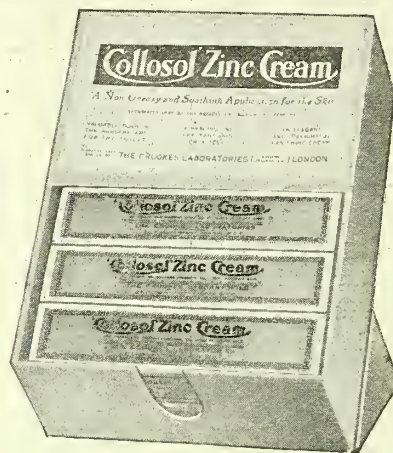
DUDLEY & COMPANY, LIMITED
451 HOLLOWAY ROAD, LONDON, N.7
City Showrooms: 65-66 FORE STREET, E.C.

Collosol Zinc Cream

The NEW elegant packing of this valuable medicated cosmetic makes a wide-spread appeal for medical, nursery and toilet use.

Its selling attraction is enhanced by supplies of samples for counter distribution.

A most remunerative proposition to the retailer.



Sells at
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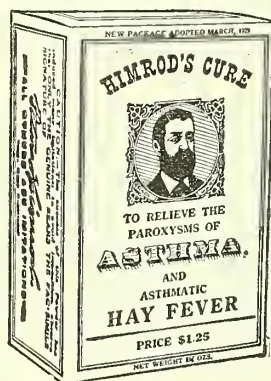
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Telegrams :
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GORST ROAD, PARK ROYAL, LONDON, N.W.10

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**Profitable,
Repeat Business and
Satisfied Customers**

Standard For Over 60 Years
Himrod Manufacturing Co.
HOBOKEN, N. J., U. S. A.

—Order From Your Service Jobber—

*Do not place your contract
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Malt & Oil

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THE BRITISH DIAMALT CO.

Malt Product Manufacturers,
SAWBRIDGEWORTH - HERTS.

SHOWS OVER 33% PROFIT.

4 1/2
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HOLIDAY'S

4 1/2
per tin.

GINGER BEER CRYSTALS

ONE TIN MAKES TWO GALLONS OF

Sparkling Home-Brewed Ginger Beer
NO BOILING OR STRAINING REQUIRED.

36/- per gross, nett. Carriage Paid. Packages Free.
3 doz. sample lot, post paid, 10/-. Advertising & Show Matter.

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LARGEST SALE of any PROPRIETARY MEDICINE in the world—PROTECTED PRICES under P.A.T.A. REGULATIONS—LARGE PRESS ADVERTISING CAMPAIGN supported by HOUSE-TO-HOUSE DISTRIBUTIONS—BEST DAILY SELLER—NO BAD STOCK

“Worth a Guinea a Box”

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AN EXCELLENT LINE TO STOCK—A LINE THAT IS WELL ADVERTISED IN THE NATIONAL AND WEEKLY PRESS—SELLS QUICKLY—EASY TO HANDLE—GIVES GOOD PROFIT

“Act like Magic”

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Telephone { 1961 Trafford Park
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Telegrams { Beveno, Manchester
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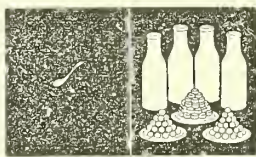
National Committee for
Promoting the Consump-
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Liver Oil, Bergen, Norway.

To combat wasting diseases; to accelerate the process of convalescence; to maintain health: Norwegian cod liver oil is a sure and trusted ally which no doctor can afford to disregard.

Thanks to its prolific content of vitamins A and D, Norwegian cod liver oil is a strong adjuvant in the fight against micro-organisms that cause colds, pneumonia, bronchitis, diarrhoea and rickets. It has been found of the greatest value in restoring to health arrested cases of tuberculosis. It also helps to maintain a healthy skin action.

There is no efficient substitute for cod liver oil.

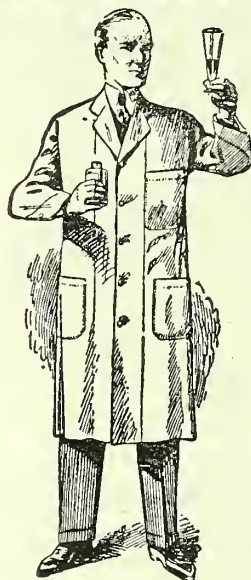
Every barrel of the world-known Norwegian Cod Liver Oil exported, is under control of the Norwegian Government.



A TEASPOONFUL OF NORWEGIAN COD LIVER OIL CONTAINS MORE VITAMINS THAN ALL THE BUTTER AND MILK ANY INDIVIDUAL CAN EAT AND DRINK IN A DAY.

**NORWEGIAN
COD LIVER OIL**

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WHITE DRILL JACKETS
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STOCK SIZES: 34 to 44 chest. Special pockets and little adjustments can be made without extra charge. **POSTAGE** on single coat 9d., but 20/- orders upwards carriage paid.

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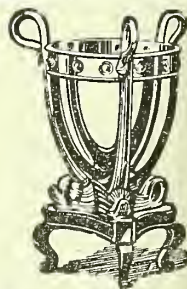
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Established 1839.

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LIQUID SILVER POLISH

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have increased
3 Fold

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PRICE PROTECTED AT FACE VALUE

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May we have the pleasure of
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Window Display Scheme?



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LIMITED
NOTTINGHAM

You should STOCK THESE TWO FOODS

Lacto-Dextrin, a food for changing the intestinal flora, 12 oz. packings, 4/-; 5 lbs. 22/-.—Psylla, intestinal vegetable lubricant, 10 oz. packings 4/-; 5 lbs. 24/-.—Both these foods are being regularly advertised to the Medical Profession throughout the year. Liberal discounts. Order through your wholesaler or write direct to:

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AN IMPORTANT ANNOUNCEMENTSTUDY THESE
REDUCED PRICES**Portia**
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REDUCED PRICES**WHITE FELT CORN AND BUNION PLASTERS**We are well known throughout the trade as the oldest and largest makers of
WHITE FELT CORN AND BUNION PLASTERS.Recently we introduced a new packing under our universally known
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WE NOW ANNOUNCE SUBSTANTIAL REDUCTIONS IN PRICES.**"PORTIA" BRAND
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	Per doz. cartons
THIN, 12 in carton	- 2/-
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THIN, "DOT" "	- 1/9
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	SMALL SIZE	Per doz. cartons
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SPECIFY ALWAYS "PORTIA" BRAND

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1857**SOLPORT**
BROTHERS LIMITEDESTABLISHED
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FEET POWDERS

From the usual Wholesalers or direct—
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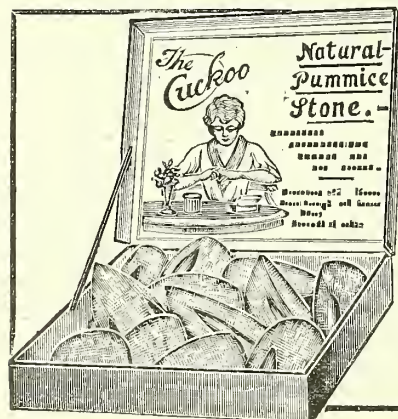
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Deal from the oldest established firm in the Trade:

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STOCK "JAZZO" THE MAGIC DANCE FLOOR POLISH.

**DRY BATTERIES**SELL ALL THE YEAR ROUND
PIFCO carry a twelve months' storage
guarantee and only cost 4½d. subject.Illustrated Catalogue free.
85 PIFCO HOUSE - MANCHESTER**NATURAL TOILET PUMMICE****Loose or packed**We have sold in one year over 4,000
Boxes as shown here; surely this is
proof of good value.**M. J. FECHER, LTD., Cuckoo House, 10 Dod St., London, E.14**

TWO LEADING LINES

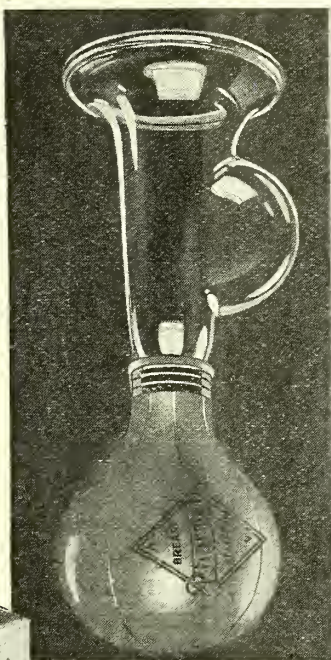
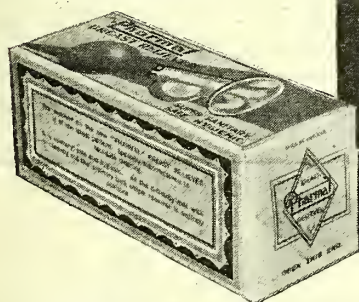
"PHARMAL" BREAST RELIEVER & "NU-LEDA" TEAT

The design of the "Pharmal" Breast Reliever enables the glass receiver to be reached with ease by the finger or a cloth. Perfect cleaning is assured, so making the "Pharmal" the safest, most sanitary and hygienic breast reliever on the market. In 2 oz. size only.

Prices :

Wholesale - 28/- per doz.
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Pharmal

BREAST RELIEVER

NU-LEDA TEAT

To give it twice the strength and twice the grip the "Nu-Leda" teat embodies two principles of teat construction. First it is re-enforced on the well-known band method, and secondly, it is rolled. Made from purest rubber, sterilisable and easily cleaned, the "Nu-Leda" is ribbed inside to prevent sticking of sides and to assist in cleaning.

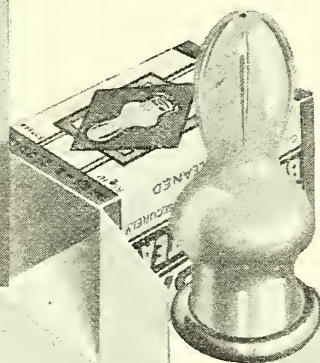
Packed in hygienic carton
ready for use.

Prices:

Wholesale 26/- Grs. (over 3 doz.)

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(Boxed complete)

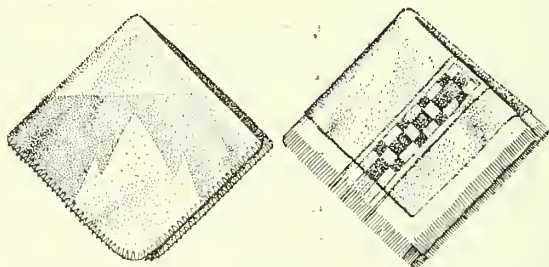
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Selling Price - 3/6 each.
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SEASON 1931



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Best sellers
The public is asking
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CLINICAL
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OF EVERY
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Send us your Enquiries,
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(Regd.)
BLUE CARTON BANDAGES

CRÊPE



P.A.T.A. Prices

	2"	2½"	3"	3½"	4"	dozen
Cost	12/-	15/3	18/3	21/3	24/3	
Sell	1/6	1/11	2/3	2/8	3/-	each

Stocked by all the leading wholesalers
Sole Manufacturers:
Grout & Co., Ltd., 35 Wood Street, E.C.2

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This range of Animal Hot Water Bottles gives the retail trade the opportunity of selling Hot Water Bottles specially made for children. They are non-competitive with ordinary hot water bottles, as most families will buy the Animal Bottles in addition to their ordinary requirements. The bottles are made to the high standard of quality which characterises all Macinlop productions, packed in attractive boxes and can be sold with confidence. COLOURS. All bottles are supplied in blue, green, brown, or black and white marble, and can be covered in orange, red or blue velvet.

FIXED PRICES TO PUBLIC.

Uncovered.		Covered in coloured Velvet.
"TEDDY" 4/3		6/-
"KITTY" 4/3		6/-
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MACINLOP

ANIMAL HOT WATER BOTTLES



1. Kitty keeps kiddies cosy in cots.

2. Bunny brings brighter bedtimes.

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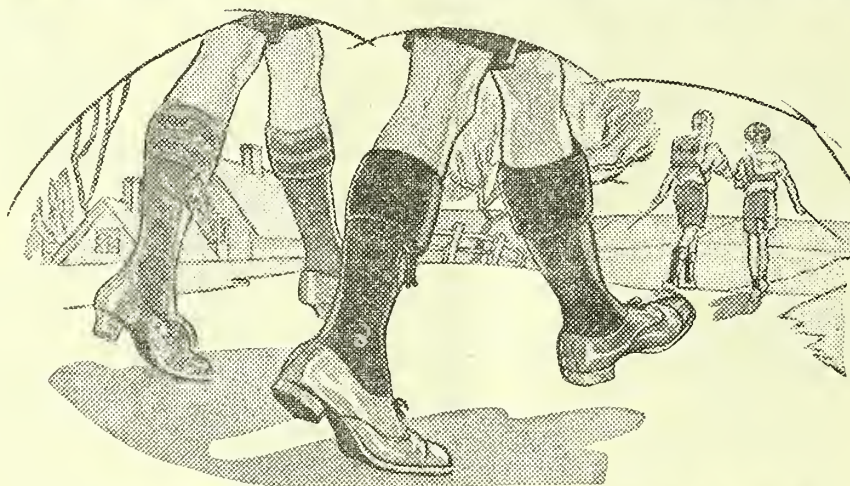
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The above illustration appeared as part of a large-space "Scholl" advertisement in The DAILY MAIL and other papers. The advertisement was a timely message to hikers. Hikers, of all people, must have foot comfort. Are you "cashing in" on the great popular Hiking Movement which is being "boomed" by all newspapers and magazines? Do not miss your chance—Scholl Advertising will help you. Make a special window unit-display appealing to hikers.

Feature in your Window :—

Dr. Scholl's **ZINO-PADS**

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SCHOLL MFG. CO. Ltd., 188-194 St. John St., London, E.C.1

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HIGHEST GRADE
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TO WHOLESALE & EXPORT TRADES

ESTABLISHED 1846

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WILLIAM RANSOM & SON, LTD.*MANUFACTURING PHARMACEUTICAL CHEMISTS,
Distillers of Essential Oils and Cultivators of Medicinal Plants.***HITCHIN, near LONDON.**

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PATENT FOODS **George King & Co. LIMITED** **IN TINS OR TONS**
 SYCAMORE ST. LONDON, E.C.1.
 SPECIAL FOODS DEvised. "OWN NAME" FORMULÆ PREPARED AND PACKED

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MYSORE GOVERNMENT SANDALWOOD OIL

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Telephone : Gerrard 4412.

*Sole Agents for America : Messrs. W. J. BUSH & Co. Inc., 370 Seventh Avenue, New York.**Sole Agents for Canada : Messrs. W. J. BUSH & Co. (Canada), Ltd., 432 St. Helen St., Montreal.*

THE CHEMIST AND DRUGGIST

SUPPLEMENT

28 ESSEX ST.
LONDON, W.C.2

JUNE 20, 1931

This Supplement is inserted in every copy of The Chemist & Druggist.

NEXT WEEK IS THE

ANNUAL SPECIAL ISSUE

therefore "THE CHEMIST AND DRUGGIST" SUPPLEMENT
will be put to press a day earlier than usual. Accordingly
any advertisements intended for the Supplement of JUNE 27th
should reach this Office not later than

10 a.m. ON WEDNESDAY, JUNE 24th.

Advertisements RECEIVED LATER will be inserted in the issue of July 4th.

ORRIDGE & CO.

56 LUDGATE HILL, E.C.4

ESTABLISHED 1846

Telephone No. : CITY 2283

May be consulted at their Offices on matters of Sale, Purchase & Valuation

1.—NORTH LONDON.—Old-established Business for Disposal; returns last year about £4,000; net profit about £1,000; double-fronted corner shop; held on lease; profit rental; price £3,000, or valuation terms entertained.

2.—STOKE NEWINGTON.—Good middle-class Business, with Optical connection; returns £2,100 last year, plus £350 from Optics; net profit £750; double-fronted shop; stock and fixtures worth about £800; rent and rates £90; long lease; price £1,600, or valuation terms entertained.

3.—HOME COUNTY.—Good-class Business, with Kodak Agency; returns £3,300 per annum; gross profit £1,200; double-fronted shop in main road; mahogany fittings; well stocked; convenient house; new lease will be granted or property may be purchased; price of business, an agreed sum for goodwill, plus valuation of stock and fittings.

4.—LONDON.—Old-established Business; double-fronted shop in main road; Kodak and Ucal Agencies; rent and rates about £107 10s.; turnover averages £2,200 per annum; gross profit over £800; terms, value of stock and fixtures and sum for goodwill to be agreed.

5.—LONDON, E.—Working-class Retail Business, with Kodak Agency and N.H.I.; returns last year £1,303; gross profit £470; property may be purchased or lease will be granted at about £40 per annum; living accommodation; price £575.

6.—LONDON, N.—Drug Store for Disposal; returns, under management of lady, £25 weekly; scope for increase; double-fronted corner shop; moderate rent; long lease; price £600.

7.—SOUTH LONDON.—General Retail and Dispensing Business, with N.H.I. and Kodak Agency, situate in busy main road; returns approximately £5,000 per annum, of which about £800 is from N.H.I.; large double-fronted shop, very well fitted and fully stocked; long lease at reasonable rental; further details on application.

8.—EASTERN COUNTY.—Country Retail Business, with Wines and Spirits; established 80 years; returns 1930, £2,108; large shop and living accommodation; freehold property, which vendor wishes to sell; price required for business, £1,200; property £950; part could remain on mortgage.

9.—BOURNEMOUTH.—Good-class Retail Business, with Kodak Agency; returns 1930 approached £1,400, with scope for increase under energetic management; very good modern house; stock worth between £300 and £400, and fixtures about £200; price, to include business and property, £2,200; no doubt a lease would be granted if required.

10.—DORSET.—Cash Retail and Dispensing Business; returns £100-£120 monthly, with scope for increase; rent £72 per annum; no rates; long lease; option of modern flat at 10s. 9d. weekly; price required for business £650.

11.—BRISTOL (Near).—Good-class Dispensing Business, with scope for Photographic; returns about £1,300 per annum; net profit about £400; well-fitted corner shop in residential area; good stock; large house; price of business about £800; property must also be purchased.

12.—YARMOUTH (Near).—Light Retail Business, with Kodak Agency; returns for current year £900, with three of the best months (season) still to go; large modern shop; rent £70; rates about £20; long lease; price about £900.

13.—ESSEX (Within Easy Distance of).—General Retail and Dispensing, with Kodak Agency; returns at the rate of £1,200 per annum; double-fronted shop; large house; rent £33 per annum; stock and fixtures worth £650; price asked £900.

14.—CORNWALL.—General Retail Business, with Kodak Agency and N.H.I.; returns exceed £2,100; average net profit £500; double-fronted shop, well fitted and stocked; lease can be renewed or property purchased; terms, value of stock and fixtures and £250 goodwill.

Chemists' Transfers, Valuations for Sale, Stocktaking & Probate

SPECIAL TERMS FOR INCOME TAX VALUATIONS

BERDOE & FISH

CHEMISTS' VALUERS AND TRANSFER AGENTS,

41 Argyle Square, KING'S CROSS, W.C.1

(One minute from St. Pancras and King's Cross Stations.)

1.—SOUTH COAST.—High-class Retail and Dispensing Business; has been neglected; present returns £40 a week; scope for being doubled; splendid position; handsome pharmacy; fully stocked: price £2,200, or offer; recommended.

2.—WEST MIDLANDS.—Well-established Light Retail, in good market town; returns average £3,200; good profits; stock and fixtures worth £1,500; price £2,250.

3.—NORFOLK.—Old-established Light Retail and Agricultural Business, in good market town; returns last year £2,300; good house, on lease; large shop; stock and fixtures worth nearly £1,100; price £1,500.

4.—WESTCLIFF-ON-SEA.—Middle-class Retail, in main road position; returns £1,350; audited books; corner shop, well fitted and stocked; price £700, or offer.

5.—TEES-SIDE.—Light Cash Retail and Photographic; returns £1,650; net profit £325; large shop, with house attached; price £1,000, or £100 plus valuation of stock and fixtures.

6.—CHANNEL ISLANDS.—Sound Light Family Retail; same hands 36 years, retiring; returns £1,264, increasing; net profit £331; own property; lease granted; price £900; worth attention.

7.—CAMBS.—Mixed Country Retail; no heavy trade; returns, under manager, £1,400; good house and garden; roomy shop, well situated; price valuation terms, about £600.

8.—ESSEX (45 miles out).—Unopposed Light Country Retail; returns average over £900; last year less through illness; low rent, on lease; price £350 for quick sale.

9.—LONDON, W.—Good-class Retail and Dispensing, returning £2,200; gross profits 40 per cent.; double-fronted shop; modern fittings; well stocked; price £1,350, or near offer.

10.—WEST MIDDLESEX.—Middle-class Light Family Retail, in growing district; returns £30 weekly; modern pharmacy and nice flat over, garage, etc.; price only £800.

11.—LONDON, S.W.—Good medium-class Retail, with Photo and Optics; returns £2,000; net profit £500; attractive modern pharmacy; well stocked; busy main road; price £1,000.

12.—ESSEX (Suburb).—Cash Retail, with N.H.I. and Kodak Agency; returns over £1,300; net profit £400; low rent; nice house; price £575.

Estab. 1870.

Telephone: Terminus 3574.

ERNEST J. GEORGE

Chemists' Valuer and Transfer Agent

Tudor House, Walsall

Phone: Wal. 274.

Tel.: Earnest, Walsall.

Quotations for Stocktaking or for Pricing Chemists' Own Stock records supplied without obligation.

(C1) CATHEDRAL CITY.—Old-established family and dispensing business; average turnover approximately £3,200 per annum; rent, £100 on lease; situated in busy thoroughfare and within easy reach of growing residential district; bankers' or other satisfactory references required.

(C2) SOUTHERN SEASIDE RESORT.—High-class pharmacy with living accommodation; doing over £60 weekly, with scope for increase; present net profits approximately £580 per annum; good private dispensing; premises held on long lease; particulars forwarded on receipt of bankers' references.

(C3) WARWICKSHIRE TOWN.—Middle-class retail and dispensing business for disposal solely on account of health reasons; turnover, £50-£60 weekly; living accommodation available; lease will probably be granted at a rental of approximately £150 per annum, or property may be acquired.

(C4) TYNESIDE.—Good retail and dispensing business; well-situated and doing approximately £1,700 per annum; low overhead expenses and high percentage net profits; large N.H.I.; living accommodation available; purchase price approximately £1,400.

(C5) MIDDLESEX.—Retail and dispensing business doing approximately £30 weekly, with scope for increase; good percentage net profits; living accommodation available; no near opposition; low purchase price for quick sale.

(C6) NORTH-EAST (LARGE TOWN).—High-class old-established pharmacy with good toilet and photographic trade; average turnover approximately £4,750 per annum; net profits exceed £1,000; property for sale at less than valuation, and mortgage arranged if desired; reason for disposal owing to retirement; particulars will be forwarded to bona fide prospective purchasers on receipt of bankers' or other satisfactory references.

(C7) DORSET.—Pharmacy with good N.H.I. connection; returns exceed £1,850 per annum; living accommodation available if required; purchase price approximately £1,100.

(C8) SOUTHERN COUNTY.—Good general and mixed business for disposal owing to ill-health of proprietor; rapidly growing and pleasantly situated town; returns exceed £40 weekly and increasing; excellent scope for energetic man; price to include freehold, £1,150.

(C9) LONDON, N.W.—Recently-established pharmacy at present doing over £30 weekly, with prospects of early increase to at least £50; large double-fronted shop well fitted, and situated in main thoroughfare; owner disposing on account of other interests; excellent opportunity for chemist with foresight.

THE ASSOCIATION OF MANFG. CHEMISTS, LTD.

Business Agency, Transfer & Valuation Department

Head Offices—Kimberley House, Holborn Viaduct, London, E.C.1 (and at 2 Bixteth Street, Liverpool).

PARKIN S. BOOTH, Valuer.

Phone: City 1261-23

BUSINESSES FOR DISPOSAL.

1.—BRIGHTON.—Middle-class retail and dispensing business. Double-fronted shop, well fitted and amply stocked; good position in main road; lease 13 years at £110 p.a.; let off £65 p.a.; returns £28 per week. Going at sacrifice price.—Further particulars on application (50).

2.—LONDON, N.W.1.—Old-established light retail Business for quick disposal; lease four years, with option of renewal; rent £83 per annum; let off £71 10s.; returns about £900 per annum.—Further particulars on application (52).

3.—MIDDLESBROUGH.—Old-established Business, situate in main busy thoroughfare, premises, occupying corner site, consist of ground floor shop, basement and large store rooms on first and second floors. Four hands kept. Returns have averaged £100 per week, but at present are £60. Lease, till May, 1932, will be extended at a rental of £250 per annum. Rates £164.—Further particulars on application (57).

S. F. CLARK CHEMISTS' VALUER and TRANSFER AGENT

34 Marksbury Avenue, RICHMOND, SURREY

Telephone:—Richmond 2210.

LONDON, W.—Death vacancy. Turnover £1,516, £800, a.a. CROYDON.—Beginner's opportunity, £600, a.a. LONDON, S.W.—Turnover £2,250. Long lease. Other propositions in Middlesex, Berks, London districts. Enquiries invited.

JOHN BRIERLEY, F.N.A.A.

CHEMISTS' VALUER AND TRANSFER AGENT,

135 Queen Street, Newton Heath, MANCHESTER.

READING.—Returns £1,123 p.a. (sublet clears rent), £950.

DERBYSHIRE.—Grocer-chemists, returns £4,000 p.a., price £1,000.

LIVERPOOL.—Returns £1,700 p.a., house, lease, price £850.

Also unique offer, MANCHESTER, main road, house, lease, returns approx. £800 p.a., price £425. (Tel.: Failsforth 1913).

FACTORIES, SOUTHALL TO BE LET OR SOLD

Alongside G.W. RAILWAY SIDINGS AND CANAL. 450,000 sq. feet of Floor area Available.

Sole Agents:

LEOPOLD FARMER & SONS

Factory Specialists & Surveyors, 46 Gresham Street, E.C.2

We desire particularly to draw the attention of Colonial and Foreign Subscribers to the fact that in cases where they require partners, agents or assistants, or wish to sell their businesses, an Advertisement in this Supplement, placed in every copy of "The Chemist and Druggist," should be the readiest means of helping them to attain their object. The tariff for such announcements is given under the appropriate headings in the Supplement. Instructions and remittances can be sent to us direct or through the advertisers' correspondents in this country.

BUSINESSES FOR DISPOSAL.

BLACKPOOL SUBURB.—Well-established Chemist's Business (8 years) with excellent House for Sale; books kept from beginning; growing district; increasing returns; Kodak Agency; limited shopping area. Full particulars supplied to bona-fide inquirers. Apply in first case to 169/39, Office of this Paper.

BRIGHTON.—Retail and Dispensing Business for disposal in centre of town, owing to death in family; good scope for energetic man; no triflers. Apply 172/12, Office of this Paper.

Bristol.—Old-established Dispensing and Family Business, with large house, in good condition; healthy suburb; valuable Proprietaries, small N.H.I., scope for Optics and Photographic; audited accounts for last seven years. 172/10, Office of this Paper.

CENTRE OF MIDLAND CITY.—Old-established Dispensing and Light Retail; theatrical connection; lock-up shop, good stock rooms; rent £60; lease, with option of purchase; stock, fixtures and goodwill, £750; small N.H.I.; Kodak and Ucal Agencies; a dozen dentists and four doctors quite near; satisfactory reason for disposal. 170/35, Office of this Paper.

EAST COAST (Seaside Resort).—Old-established Chemist's Shop; main thoroughfare; turnover increasing; 1930, £1,470; good profits; rent and rates £70; stock £550 to £600; fittings valued at £200; price for quick sale £650; house with garage available; good living for qualified or unqualified. Apply 172/24, Office of this Paper.

FIELD DISTRICT.—Chemist's Business for immediate Sale; 12 miles from City; Light Retail, Dispensing and Photographic; working-class district; very low rent on lease; convenient 6-roomed house; turnover about £700 per annum at good profits; good stock and fittings; owner seeking larger business; price £450, or near offer. "Lupulus," 169/29, Office of this Paper.

LAMORGAN.—Old-established, middle- and working-class Business in main street near Docks; double-fronted shop, room at back, two above, garage with loft at rear; N.H.I. 320 monthly; rent £70; rates £25; garage and loft let off 7s. 6d. weekly; takings about £1,130; price £350, or near. Davies, Chemist, Penarth.

LEICESTERSHIRE.—Light Cash Retail; Kodak Agency, N.H.I.; lock-up shop and warehouse on freehold building site, 200 square yards; front position; main road; price for business £500; for land and buildings £175; age cause of sale; unique opportunity for young man. 169/16, Office of this Paper.

LONDON, N.—Good-class Family Retail Business, with Kodak Agency; returns average over £1,300 per annum; vendor owns the property and will grant 21 years' lease; double-fronted shop and eight-roomed house with side entrance; price £1,000. 171/21, Office of this Paper.

MANCHESTER.—Select old-established Chemist's Business; important main road; returns £38 weekly without N.H.I.; rent and rates £22 weekly; long lease; business capable of great extension; good opening for Optics; price 1½ years' net profits, plus valuation of stock and fixtures; bankers' references; owner retiring. 170/16, Office of this Paper.

MIDLANDS.—Compact, smart, double-fronted lock-up City shop, opposite station; easily worked; Kodak Agency; rent and rates £434; 9½ years' lease; turnover £2,000 at very good gross profits (average turnover £2,350); smart man could easily double; opportunity for Photographic Expert; price £475, which includes £325 stock; a great bargain, as proprietor has other interests. 171/29, Office of this Paper.

NORTH-EAST COAST.—Cash Retail and Photographic Business; average takings about £40 per week; Kodak Agency; dedicated Wine Licence; small N.H.I.; moderate rental; capable of considerable development under live owner-manager; genuine reason for selling. Further details on application. 168/31, Office of this Paper.

SOUTH COAST (popular seaside resort, few yards sea).—Spacious shop; corner premises; side entrance; established 9 years; splendid condition; ample living accommodation, 12 rooms; recently redecorated; low rent; part sub-let pays rent, rates; lease very favourable; 14 years unexpired; Kodak Agency; pending N.H.I.; good-class district; £700, all at. 169/10, Office of this Paper.

SOUTHEND-ON-SEA.—Drug Stores, Chemist's Sundries Business; new growing main road district; large estate near by; no chemists in neighbourhood; fine opportunity for qualified man; smartly fitted shop; increasing trade; nice modern house and garden; any lease granted, owner's own freehold; accept £450, including large stock. Recommended, Hodgins, 11 Clarence Street, Southend. Phone 3617.

WEST RIDING (suburb of important city).—Easily worked, profitable, old-established Chemist's Business soon coming into the market; vendor now has other interests; splendid position for "company" shop; ingoing approximately £1,000; own property; would sell same or lease granted; Kodak, Ucal Agencies. 170/11, Office of this Paper.

CHEMIST.—Genuine high-class Dispensing and Drug Business and premises in main thoroughfare (Edinburgh); double shop, well fitted and stocked. Apply J. & H. Smith, Ltd., Edinburgh.

CHEMIST, giving up pharmacy, wishes to Sell small Business on South Coast (not Bournemouth); nice house, garden and garage; turnover £20 per week; new and developing district; this is genuine opportunity to acquire sound little business at price of stock and fixtures, only about £400. 172/7, Office of this Paper.

DRUG STORES.—For immediate disposal; Photo-plant and scope for N.H.I.; low rent; all at £150; £50 deposit, rest at weekly instalments. 172/17, Office of this Paper.

EXCELLENT opportunity for qualified chemist and optician or company; high-class Pharmacy (unqualified), with excellent Optical practice; centrally situated in growing South Coast town near London; gross profits £1,430, certified; rent and rates £200, approximately; easily run with one assistant and scope for considerable increase for qualified man with the right personality; goodwill, stock, fixtures, machinery and lease (eighteen years to run) £3,000, part of which could remain. Apply 172/37, Office of this Paper.

HANDSOMELY fitted Chemist's Business for Sale in beautiful South Coast town; large lock-up shop, with good Photographic business, in main road, near sea; well worth investigating; will accept reasonable offer for quick sale. Write for particulars and send references. 168/180, Office of this Paper.

LOOK!—£400 or near offer; old-established Business at Stratford, E.15; sales £1,081; net profit £434; lease 20 years; rent £19 10s. per quarter; stock, fixtures, fittings, lease and goodwill; must be sold; family reasons; absolute bargain; genuine applicants. Write to "Chemist," c/o 19 St. Mark's Road, Dalston, E.8.

MODERN Chemist's Business, Western suburb; best market position; main road; handsomely fitted; established nearly 2 years; takings £25 weekly; could greatly increase under personal management; stock about £450; fixtures £250; 12 years' lease to run; price £750 for quick sale; snap for live man. Apply P.C.B. 53/31, Office of this Paper.

ONE o'clock Saturdays; S.E. district; Wholesale Wireless, Accumulator Acid; Distilled Water, Drug and Chemical Business; genuine good going concern; inspection and offers invited; weekly tenancy at 14s. per week; good reasons for disposal. Roberts, 37, Surrey Road, Peckham Rye, S.E.15.

RECENTLY-ESTABLISHED Pharmacy in central position of market town; turnover since opened £100 to £120 a month; well-fitted, lock-up shop; low rent; no rates; genuine reason for disposal; cash buyers only; bargain for quick sale. "S. A.," 170/5, Office of this Paper.

SPACIOUS oak-fitted Pharmacy for Sale; stock and fittings £1,400; pleasantly situated in main tram route; seven minutes from sea; takings £2,500 at 42 per cent. gross; will accept offer for quick sale, owner retiring because of health; interview arranged on receipt of references. 168/18, Office of this Paper.

SURGICAL and Orthopaedic Business for Sale, South Wales; only reason for selling, severe illness; excellent prospects; will dispose, including stock, for £250, or nearest offer for quick sale. Apply in first instance to P.C.B. 53/18, Office of this Paper.

UNOPOSED Pharmacy, with Freehold Property; south-west county; same hands over 20 years; well fitted and stocked; thoroughly genuine concern; books kept; protracted illness sole cause for disposal; Kodak Agency; eight-roomed house; enclosed garden; electric light; turnover exceeds £1,500; considerable scope; every investigation welcomed. Inquiries, accompanied by bank references, to "Radox," 172/33, Office of this Paper.

£155, GOING concern, or near offer, Drug and Herbal; lock-up; nicely fitted; electric light; main road; sound business; death cause of sale. 170/28, Office of this Paper.

£250 WILL purchase sound Business in West of England city; returns £800-£850, at good profits; sound reasons for disposal. Full particulars on application. 170/34, Office of this Paper.

PATENTS.

A PROCESS FOR THE EXTRACTION OF THE FAT SOLUBLE VITAMIN.—The owners of British Patent No. 220,697 are willing to enter into working arrangements for the exploitation of the same in Great Britain. Particulars obtainable from Technical Records, Ltd., 59-60 Lincoln's Inn Fields, London, W.C.2.

BUSINESSES WANTED.

BERDOE & FISH are in immediate want of Businesses on the South Coast, Home Counties, Midlands and North, returning about £3,000 upwards; cash buyers waiting; quick sales without publicity; correspondence cordially invited. 41 Argyle Square, King's Cross, W.C.1.

BOURNEMOUTH OR DISTRICT.—Pharmacist wishes to purchase a really good Business doing at least £2,500; well appointed and good-class trade; must be subject to every investigation; all offers treated in strictest confidence; management with view to succession considered. 169/33, Office of this Paper.

CASH waiting for Drug Store or neglected Chemist's Business. Full particulars (in confidence) to P.C.B. 53/32, Office of this Paper.

IMMEDIATE cash available for purchase of Country Business in market town of about 10,000 population, South of Thames and Bristol Channel. In reply please state turnover, rent, particulars of lease, and living accommodation. Ladds, 20a Tremaine Road, Anerley, S.E.20.

LEEDS OR SHEFFIELD.—Sound Business required; returns over £1,250; cash waiting. Full particulars (in confidence) to 170/26, Office of this Paper.

LONDON, or near preferred, sound good-class Business, without Optics, for cash up to £1,200 and any balance by arrangement; very costly fittings not desired; kindly give details of style of business, returns, price, etc. "Locum," 124 Haviland Road, Boscombe. Agents kindly note.

LONDON OR HOME COUNTIES.—Pharmacist, with capital, requires sound Business; will consider any good proposition doing £2,000 or over; cash transaction for suitable business, which must be capable of investigation; banker's reference given, and all correspondence treated in confidence. 187/658, Office of this Paper.

WANTED, a Business in Bournemouth or near; turnover about £40 weekly, or smaller if scope for increasing. 172/15, Office of this Paper.

WEST RIDING OF YORKSHIRE.—Pharmacist, who is a genuine buyer and not a trifier, requires a sound Business with a minimum turnover of £2,500; must be profitable and stand every investigation; good price paid for the right concern; immediate cash transaction; would consider management with view to early succession. Full particulars (which will be treated as strictly confidential) to 172/9, Office of this Paper.

AGENCIES.

AGENCY WANTED, SCOTLAND.—Agent, with central show-room and office in Glasgow, is desirous of additional advertised line to offer to Hairdressers, Chemists and Stores; excellent connection throughout Scotland, and good business assured the line accepted; area can be split if desired. 170/51, Office of this Paper.

WHOLESALE Jeweller and Fancy Goods Merchant, territory covered, all Scotland, four Northern Counties England and Ulster, established connection with Chemists for razor blades, would like Agency for side line; Proprietary goods preferred. Apply 164/36, Office of this Paper.

FINANCIAL.

REQUIRED, one with small capital to develop old-established Wholesale Business; excellent prospects; fullest particulars given; need not be qualified chemist. Apply P.C.B. 53/34, Office of this Paper.

SCOT, qualified, young, married, excellent business experience, 10 years' successful management of private and multiple businesses, keen, energetic, seeking to make progress, asks for financial help; honest, just, reliable, thoroughly trustworthy; Partnership with view to succession entertained, or instalments; confidential; no triflers. Please state terms. 168/27, Office of this Paper.

PREMISES TO LET.

FINE opening for Chemist, Shoreham, Sussex; best position in the centre of main street; lock-up shop with large window space; opposite bus stop; long lease; rent only £60 per annum; flat also available; vacant June 24. Day & Sons, Auctioneer, Hove.

TO be Let on lease, corner Shop in course of erection, situated on main road centre of populated area and fast-developing estates; splendid opening for Chemist business; excellent living accommodation, 4 bedrooms, bathroom, sitting and kitchenette. Apply Cartwright & Son, Estate Agents, facing Southern Station, Hounslow. Phone 0128.

PREMISES FOR SALE.

BOURNEMOUTH.—Must be Sold, good freehold block Premises, Chemists on corner, also Lock-up Shop, let £60 per annum, and S.C. Flat; premises, goodwill, stock and fixtures £2,100, of which £1,700 can remain on building society mortgage, therefore capital required only £400; real bargain. Apply C. R. Blissett, Chartered Accountant, Fir Vale Road Bournemouth.

EXCELLENT opening for Chemist; shopping centre; new district near London; good shop and living accommodation; no opposition. Write Box A, Smith's Library, Slough.

SLOUGH (near).—Last two left in attractive block; shops each 18 ft. x 40 ft., and with good flat on two floors over; price £1,600; favourable mortgage available. Apply Hillier, Parker, May & Rowden, 27 Maddox Street, W.1. Tel.: Mayfair 6710.

TENDERS INVITED.

THE Director-General, India Store Department, Belvedere Road, Lambeth, London, S.W.1, invites Tenders for:—

Schedule 1. 18,550 lbs. Lint.

Schedule 2. 6,370 lbs. Chloroform B.P.

Schedule 3. Bismuthi Subnitras, Carbonas, etc., B.P.

Samples of Schedules 1 and 2 required with tender. Tenders for all Schedules due 26th June, 1931.

Forms of tender available from the above at a fee (which will not be returned) of 5s. for each Schedule.

PARTNERSHIPS.

GENTLEMAN, possessing controlling interest in a modern, well-established Wholesale business, with rapidly increasing connection and exceptional possibilities for expansion, desires to meet one or more Chemists with capital who would assume joint executive responsibility with view to acquiring whole or part interest on his retirement; fine opportunity for capable, enterprising men seeking investment and scope for their energies in a well-organised business; only genuine investors need apply. State capital at disposal, when at liberty, and full particulars first letter (in strict confidence) to 187/657, Office of this Paper.

QUALIFIED (44) desires to purchase active Partnership in sound Light Retail; capital about £1,000. Brown, 27 St. Helens Road, Hastings.

APPRENTICES.

APPRENTICE.—A vacancy occurs in a high-class Pharmacy for a young lady or gentleman desiring to become articled; Preliminary essential. Please write N. Zamet, M.P.S., 150 Golders Green Road, N.W.11.

Price lists, trade circulars, samples, and printed matter can in no case be forwarded, the Box numbers being intended exclusively for specific answers to particular advertisements. The Publisher reserves the right to open and refuse to forward any communications received which he may consider contrary to this rule.

SITUATIONS OPEN.

RETAIL (HOME).

s. for 40 words or less; 6d. for every additional 10 words or less, prepaid. (Box No., 1s. extra.)

BIRMINGHAM.—Manager, qualified, about 30, for early July preferred in middle-class business; good commission to energetic man. Full particulars, 170/39, Office of this Paper.

BRISTOL.—Wanted, experienced, qualified Manager for branch; good Salesman and Window-dresser essential. Apply, stating references, age, salary required, King, Chemist, 192 Stapleton Road, Bristol.

CARDIFF.—Qualified Assistant; knowledge of Optics and Photography; must be good Window-dresser and Counter-man. Apply, stating experience, salary required, and enclose photograph, with two recent references, Frank Edwards, 192 Downbridge Road, Cardiff.

DERBYSHIRE.—Wanted, qualified lady, early July, to manage small branch shop. Apply, stating age, salary, experience, etc., to 170/7, Office of this Paper.

LANCASHIRE.—Qualified Relief Manager required; permanency given to smart and keen Salesman who proves himself suitable. Give full particulars of age, previous experience, and when disengaged to 169/401, Office of this Paper.

LONDON.—Qualified Manager wanted immediately for branch in working-class district; good Window-dresser and knowledge of Photography. Apply, giving full particulars, age, height, experience, salary required, to 171/5, Office of this Paper.

LONDON, S.E.—Assistant, male, unqualified, wanted at once; must be good at Windows and Counter in medium-class business. Apply, stating age (not under 25), experience and salary required, E. G. Price, Chemist-Optician, 280 High Street, Lewisham.

LONDON, E.—Qualified Manager required for working-class Retail and N.H.I. business; permanency for tactful and obliging manager. Apply, stating age, experience, references, salary required, to Ascott's Pharmacies, Ltd., Head Office, 48 and 50 Durham Road, Holloway, N.7.

LONDON, W.—Locum, qualified, required from now till end of September. Apply, with full particulars, stating salary required, to 171/39, Office of this Paper.

MANCHESTER.—Smart qualified man required with knowledge of Optics (J.C.Q.O. man preferred, but not essential); must be accurate Dispenser with Window-dressing and Photographic experience; salary, and commission on Optics. Send full particulars of experience, age, salary, and when disengaged, to "Bismuth," c/o Jas. Woolley & Sons, Victoria Bridge, Manchester.

N.W.6.—QUALIFIED lady, over 25 years, used to N.H.I. Dispensing; good Counter manner; knowledge of Photography an advantage; salary £3; permanency. 172/38, Office of this Paper.

PETERBOROUGH FRIENDLY AND TRADE SOCIETIES' MEDICAL INSTITUTE require the services of a fully qualified Dispenser (male or female); two Surgeries daily, Sundays and Wednesday evenings excepted. Applications, with copies of references only, stating salary required, by June 25, to the Secretary, C. Edward Cox, 15 New Road, Peterborough.

S.W.—WANTED, young lady, about 25; must be efficient Counter-hand and Dispenser; short hours; quick cash business; no N.H.I. Apply, with full details of past experience, copies of references, salary, etc. Excellent prospects to willing worker. 169/20 Office of this Paper.

SUSSEX COAST.—Chemist-Optician, registered J.C.Q.O., required at once; must be capable Refractionist and good Salesman; Pharmaceutical qualification not necessary; temporary or permanent. Enclose photo and fullest particulars of experience, age, height and salary required, etc., to 168/13, Office of this Paper.

A. C. VALLANCE, LTD., Chemists, Mansfield, require qualified Assistant, capable and trustworthy, to manage Branch Pharmacy. State age, experience, and salary required (under 50 preferred). Applications not answered within a week respectfully declined.

A QUALIFIED Manager required to take entire charge of new branch in Sussex; must be of unimpeachable character; will be required to put £500 into the business; Optical qualification an advantage; good salary and excellent prospects; photo to be enclosed with application. 171/2, Office of this Paper.

A CAPABLE Assistant wanted for July 6. Shapley, Chemist, 649 High Road, Seven Kings, Ilford.

AUGUST.—Chemist and his family desiring a London holiday at an ideal centre, are offered the use of a chemist's house (West-End) in return for light duties. Apply Roberts, 6 Lower Belgrave Street, London, S.W..

ASSISTANT, unqualified, for brisk middle-class trade; good Dispenser and Counter-hand. Apply, with testimonials, Venables, 54 Fulham Palace Road, Hammersmith.

CHEMIST-OPTICIAN, with limited capital, wanted to join a progressive firm in North Midland city; sole charge of new branch; salary and half net profit. Full particulars in first letter to 170/2, Office of this Paper.

CHEMIST-OPTICIAN wanted, beginning of August, to manage branch, with small Optical connection, in Derbyshire; salary £4 per week, plus commission, and 50 per cent. of optical profits. Applicants kindly give full particulars and enclose copies of recent references to 169/36, Office of this Paper.

ELDERLY, qualified man wanted for very light post, without responsibility, in Midland town; easy hours; suit man who has retired, but desires some occupation. State age, references, state of health, and salary required to 173/2, Office of this Paper.

GENTLEMANLY unqualified Junior Assistant for the season, used to Photography and good-class Counter trade. Apply, stating references and salary, enclosing photo (to be returned), E. Thorp & Son, The West End Pharmacy, Begnor Regis.

HARRODS, LTD., require the services of an experienced qualified Assistant Manager for their Drugs Department; applicants should be 28-35, of good appearance, and able to control staff; first-class experience essential. Write to Staff Manager, Harrods, Ltd., 44 Hans Crescent, S.W.1.

HOLIDAY RELIEF.—Unqualified Junior Assistant required for fortnight, August 31 to September 12. Reply, giving age, experience, and salary required, to R. W. Oldland, 131 Broadway, Thorpe Bay, Southend-on-Sea.

LADY Assistant (Minor qualification) at once; West London suburb; working-class business; permanency; commencing salary £3 10s. weekly; must be young, energetic, quick and accurate Dispenser, pleasant Saleswoman, and have Photographic knowledge. State age, references, when at liberty in first letter. P.C.B. 53/25, Office of this Paper.

LADY CHEMISTS, LTD., require lady Locum, August 15 to 22 and August 31 to September 12. Reply, stating terms and experience. Also vacancy will shortly occur for young lady Apprentice; time allowed for classes. Apply Dawes Lane, Mill Hill, N.W.7.

LADY, unqualified, smart, up-to-date London-suburban experience, required immediately for a few months (probably permanently) in W. district; Toilet, Photography, Counter, Window State, by letter, experience, salary, age, etc., photo if possible. "Alpha," 44 First Avenue, W.3.

LADY, qualified, for North Wales. State age, experience and salary required. If possible enclose photo (which will be returned) to 172/20, Office of this Paper.

LOCUM Tenens required, Monday, July 20, to Saturday, August 15 inclusive. Manager, Drug Department, Co-operative Society, Ltd., Aston-under-Lyne.

LOCUM, qualified (gentleman), required for 4 weeks, commencing August 9. P. Stacey & Son, 81 High Street, Teddington, Middlesex.

LOCUM, qualified, experienced, required, August 7-22 inclusive; good-class Dispensing and Family business. Peel, 195 Widmore Road, Bromley, Kent.

LOCUM (M.P.S.) required for two weeks from August 3 to August 15 inclusive. Send full particulars to James H. Wilson, Ltd., The Broadway, Crouch End, N.8.

MANAGERS.—Tailors Cash Chemists require two Managers for London and seaside Branches. Applications (by letter only) giving full details of previous experience, together with age, height and salary expected, to 55 Pall Mall, London, S.W.1.

PART-TIME; London; qualified required; permanency Call or write, 221 High Street, Tooting, S.W.17.

QUALIFIED Assistant wanted shortly; good Dispenser and Counterman; young; male; permanency. J. B. Barnes & Son, 205 Knightsbridge, S.W.7.

QUALIFIED lady Pharmacist to manage small branch; no N.H.I.; live out; good Window-dresser; Photography. Rowcroft & Co., Ltd., 66 Week Street, Maidstone.

QUALIFIED Manager (married) for suburban business, with house attached, in Manchester district; must be smart Counterman and good Window-dresser; salary and commission, with excellent prospects for the right man. State age, previous experience, and when at liberty to 169/400, Office of this Paper.

QUALIFIED Assistant (male), young, required immediately; used to busy season trade. State height, salary, references, etc., photo if possible; permanency if suitable. Holmes', Chemists, 14 Aberdeen Walk, Scarborough.

QUALIFIED Assistant, 25-30, male, wanted immediately. Prosper Roberts, 13 Church Street, Camberwell, S.E.

QUALIFIED Manager for pharmacy near London; age 35-45; indoors; commence last week July; must be thoroughly reliable, experienced in N.H.I., and working-class business. Prescriber, good Window-dresser, keen business builder; good opportunity for capable man. 187/655, Office of this Paper.

REQUIRED, early July, steady, healthy, qualified Chemist and Optician, J.C.Q.O., 35-40, as Manager of good-class East Coast seaside pharmacy doing over £3,000; previous experience as Manager, Buyer, Salesman, Window-dresser, etc., absolutely essential; excellent prospects and permanency for right man; other things being equal, preference given to man willing to invest. Apply, giving full particulars, salary expected, and if willing to invest, 170/18, Office of this Paper.

SMART young Qualified Assistant (single) required for City business July 6; easy hours; Saturday, 1.30 p.m.; no Sunday duty; knowledge of Photography essential. Please give recent reference and salary expected to Major, 44 Wickham Way, Beckenham, Kent.

TAYLORS CASH CHEMISTS have vacancies for two Unqualified Assistants in London. Applicants should give full particulars (by letter only) of age, height, experience and wage required and when at liberty, to 55 Pall Mall, London, S.W.1.

UNQUALIFIED Assistant required for city business in Midlands; must be first-class Window-dresser and smart Salesman; excellent prospects for man with exceptional experience. Send details of age, salary, and when free. 169/40, Office of this Paper.

UNQUALIFIED Locum (lady preferred) required to manage small high-class Drug Stores in Midlands, August 8 to 15, both dates inclusive. Write, giving full particulars as to experience, age, salary required for the period, etc., to 172/30, Office of this Paper.

UNQUALIFIED Assistant required at odd times as relief in Hampstead district; must be capable Dispenser (high-class); also two weeks full time from August 31 if open. 172/5, Office of this Paper.

WANTED for season, Junior Assistant (male); must be quick and accurate Dispenser, smart at Counter and have knowledge of Photography. Apply, stating age, experience, salary expected, with references, to Frank Kirkby, Pharmacist, Sutton-on-Sea, Lines.

WANTED, Relief Dispenser (male), Thursdays only, 7-9 p.m., and summer holiday; Doctor's Surgery, Upper Holloway. Replies to "W." c/o of Duncan, Flockhart & Co., 155 Farringdon Road, London, E.C.

YOUNG, qualified Locum required for West Riding of Yorkshire, Saturday, August 15, to Friday night, August 21, inclusive; salary £4 10s. for the period; addresses of persons furnishing references required with application. 169/37, Office of this Paper.

WHOLESALE.

A WELL-KNOWN Shaving Brush house, re-arranging territories, requires Representatives, on commission, calling Chemists, Hairdressers, Stores, with other lines. Applicants please state territory covered and full particulars first letter. 168/20, Office of this Paper.

LABORATORY.—A provincial firm have a vacancy in their Manufacturing Laboratory for a Pharmacist (not over 30) with the Major or equivalent qualification. It is desirable that applicants should have had experience in a similar capacity. Applications should contain full particulars of experience, qualifications, age and salary expected. Address "Pharmacist," 187/653, Office of this Paper.

PHOTOGRAPHS, TESTIMONIALS, &c.

When answering advertisements in this section applicants are strongly advised not to send (unless specially requested) ORIGINAL TESTIMONIALS or VALUABLE PHOTOGRAPHS. As can be readily understood, when an advertiser receives from 60 to 100 replies the task of returning photographs, testimonials, &c., is one of some difficulty.

REPRESENTATIVE required by leading manufacturing firm to solicit orders from provincial Doctors, Chemists and Hospitals; must be a proved salesman, well educated, and a good address; energetic and conscientious worker, and preferably between 28 and 35 years of age; experience in interviewing medical profession essential, and knowledge of Glandular Therapy an advantage. Write, in confidence, briefly in first instance, to "M." c/o Streets, 6 Gracechurch Street, London, E.C.3.

REPRESENTATIVES, calling on Hospitals, Medical Men and Wholesale Houses, wanted to include world-known Anæsthetic manufactured by old-established British firm; on commission basis. Full particulars and district to 187/654, Office of this Paper.

REPRESENTATIVES wanted, with good connection Chemists, Stores, etc., for each of the following territories: Scotland, Yorkshire, Eastern Counties, Wales, West of England, to carry seasonal line; small samples; repeats certain; commission basis. Write full particulars to 171/19, Office of this Paper.

REPRESENTATIVES wanted (also Agents) by well-established Manufacturing Chemists to carry additional side lines of small capacity; already well known to the trade; liberal commission; good prospects and remuneration for men who are salesmen. Apply 171/3, Office of this Paper.

REPRESENTATIVES required for London, South Coast, Midlands and West of England, with established connection among Chemists and Hairdressers, for high-class Toilet Requisites; small salary and liberal commission during month's trial period; applicants should state area covered and possess undeniable selling records. Apply 171/35, Office of this Paper.

TO gentlemen having sound connection with Wholesale and Retail Chemists. The M.M.T.P. Co. are widening the scope of their activities (for their popular pack in carton) and offer a profitable proposition to commission Salesmen in centres where not already represented. Write for terms of this daily commodity, with unlimited prospects; give particulars, ground covered, lines carried. The Miss Muffet Toilet Paper Co. 1 Julian Road, West Bridgford, Nottingham.

WANTED, by provincial Wholesale Drug House, experienced Invoice Clerk. Apply, stating experience, age, salary, etc. 187/651, Office of this Paper.

SITUATIONS WANTED.

RETAIL (HOME).

2s. for 18 words or less, 6d. for every additional 10 words or less, prepaid. (Box No., 1s. extra.)

A.A.A.A.—CAPABLE Assistant, with initiative and tact; careful Dispenser, good Window-dresser; Photographic expert; unqualified; 28. Davies, 12 Naylor House, Albion Road, Clapham, S.W.8.

A.A.A.—QUALIFIED Locum; young; experienced; capable; free June 29-July 11 (anywhere); also August 10-September 5 (or part), Margate district preferred. Currie, 56 Adelaide Road, Leyton.

A.A.A.—LADY Assistant desires post; unqualified; 12 years' experience, London, provinces and coast; Dispensing, Counter, Window-dressing, etc.; tall; good references; free immediately after engagement. "Statim," 5 Perham Road, West Kensington.

A CHEMIST, fully qualified, with exceptional all-round experience, seeks permanent Management or Locum, full charge, during next few months; competent; good personality; highest references; abstainer; married. "Dermatol," 170/38, Office of this Paper.

A LOCUM; qualified man; disengaged June 29 to July 20, August 24 to 31. "Pharmacist," 98 The Grove, Ealing, W.5.

A PHARMACIST, 30, married, desires position offering scope, demanding initiative; 12 years' experience, West End, Continent, provinces; conversant with modern display methods and advertising; first-class references. 172/4, Office of this Paper.

A QUALIFIED Chemist, 26, desires permanent, progressive situation in South London or near, early in September; wide experience; conscientious worker; excellent references. 173/3, Office of this Paper.

A QUALIFIED lady, 23, excellent references and experience in Dispensing, Book-keeping, Counter work, Window-dressing, Photography, desires post in middle- or high-class pharmacy, preferably in Manchester district. "P. F. M.," 183 Portland Street, Southport.

ADVERTISER, 39; unqualified; accustomed responsibility; competent Dispenser, smart Window-dresser, keen Salesman, Prescriber; Photographic; London or Home Counties. "Provincial," 171/27, Office of this Paper.

General Assistant (lady); Counter and Toilet; good experience. "F. W.," 53 Chichester Road, Kilburn, N.W.6.

Manager; 26; competent; experienced; well recommended; 6 ft.; good address and appearance; single. "M.P.S.," Gladys Avenue, Portsmouth.

Locum; thoroughly experienced; qualified Optics and Pharmacy; reliable; conscientious; abstainer; has July; own equipment. "F.B.O.A.," c/o Jones, Ltd., Redruth, Cornwall.

Locum or temporary Assistant; disengaged; experienced; excellent references; abstainer; moderate terms. "G.," 142 Lane, Southampton.

Manager or Assistant; tall; progressive; permanent post; excellent experience and references; London preferred. 1/24, Office of this Paper.

Assistant; unqualified; Counter and Dispensing; age 28; tall; disengaged July 6; honest and trustworthy; excellent references. Tuck, 71 Wellesley Road, West Croydon.

Assistant or Manager; unqualified; tall; single; abstainer; 30 years' good all-round experience. Harris, c/o S. W. teley, Summerfield Pharmacy, Birmingham.

Assistant; competent; reliable Dispenser, good Salesman; accustomed to manage; middle-aged; single; unqualified. "M.," 228 Lockwood Road, Huddersfield.

Assistant, 35 (Part I); good Dispensing and Counter experience; Photography; abstainer; good references. "H.," 47 Portland Street, Aberystwyth.

Assistant, unqualified, desires post anywhere in London or S.E.; first-class experience; Dispensing, Toilets, Perfumery, Photography and Window-dressing. "Disengaged," 60 Porrack Lane, Gravesend, Kent.

Assistant (male), 21 (Part I), requires position before taking Part II Course in October; good experience and references; free July 6. "Adaptable," 5 Manor Road, Rugby.

Assistant; unqualified; age 54; thoroughly reliable; Dispensing, Prescribing, Counter, Photography and Window-dressing; capable taking charge; well recommended; permanency otherwise. "London," 172/39, Office of this Paper.

Assistant (lady, 30); unqualified; 13 years' experience; Counter and Dispensing; smart Saleswoman; stylish window-dresser; could take charge; Lancashire preferred. 2/36, Office of this Paper.

Assistant, with good-class general experience, desires position; references, etc., are excellent; ambitious, keen, reliable. 187/656, Office of this Paper.

Chemist; qualified; first-class experience; reliable; Locums or permanency. Preston, 281 Plymouth Grove, Manchester.

Dispenser-Book-Keeper (lady), Hall, desires position; accurate; experienced. "M. D.," 17 Tulsemere Road, West Norwood, S.E.27.

Elderly, qualified desires employment with short hours or part-time; country, near London, preferred. Baker, 81 Car Road, Reading.

Experienced Saleswoman; Drugs, Toilet and Perfumery. "Advertiser," 5 Mandeville Road, Enfield Wash, Middlesex.

Free for Locum; town or country; qualified Manager; 35. Send full particulars, "Chemist," 5 Cheisham Road, S.W.4.

Fully-Trained Chemist's Assistant, lady (Hall) requires post; seven years' high-class experience, including London Hospital; excellent references; would take Locum. "M.," Stafford Street, Longton, Staffs.

Improver, tall, of good appearance, desires post; good Counter experience. Please write, K. Billiter, 150 Golders Green Road.

Ady Dispenser (Hall), 26, requires post, Chemist, Doctor or Institution; London or provinces; 7 years' experience, dispensing, Book-keeping, etc., also N.H.I. "Stuart," 25 Sters Avenue, Clapham Common, S.W.11.

Ady; unqualified; 12 years' excellent experience, Dispensing and Counter; keen; energetic; able to take charge; London Midlands preferred. 172/14, Office of this Paper.

Ady, M.P.S., requires Locum; sea or country; free August 21; excellent experience. "Pharmacist," 140 Belsize Road, W.6.

Locum; qualified; experienced; free July 7 to 25 inclusive. Jones, 57 Brown Road, Walthamstow, Essex. Phone: Iswick 4918.

Locum-Management; over 30 years' experience; not registered; Hospitals, heavy Panel, Counter, Prescriber, Salesman, Stock, Books and Buyer, and good general all-round. "G.," 130 Scott-Ellis Gardens, N.W.8.

Locum; qualified; free end of June; well recommended; been in own business; active; middle-age. "Chemist," 66 High Street, Hastings.

Locum; qualified; lady; Square trained; experienced Hospital, Retail; free June 20-July 11, August 22 onwards; London, suburbs. Phillips, 17 Scutari Road, East Dulwich, S.E.22.

Locum; qualified; 33; married; free last fortnight September; Home Counties or South preferred; 9 years' experience as Manager. 169/21, Office of this Paper.

Locum or permanency; unqualified; competent; active; reliable; Prescriber; abstainer; single; engaged Nottingham, June 15 to July 26, also Derby, August 17 to 30; vacant July 27 to August 16 and August 31 onwards. Howard, 30 Pimlico, Ilkeston (Derbys).

Locum; qualified; all-round experience (West End and provincial); disengaged till July 1 and after 8th; references good. 171/16, Office of this Paper.

Manager or Locum; 38; first-class experience Pharmacy and Photography; excellent references; live in, or lock-up. Findlay, 62 Lillie Road, S.W.6.

Manager or Assistant; qualified; good experience, London and provincial; abstainer; salary £3 3s. per week (outdoors); Locum work accepted. F.C.B. 53/22, Office of this Paper.

M.P.S. (woman), experienced, excellent references, desires permanency. 170/27, Office of this Paper.

M.P.S., F.S.M.C. (and Supplemental) requires position as Manager; London or provinces. 171/8, Office of this Paper.

M.P.S., F.S.M.C., 25, requires situation in London with Chemist-Optician; good references; experience in both branches. 171/22, Office of this Paper.

Pharmacist, qualified, age 23, good experience in Scotland and London, excellent references, desires post. Apply Gordon, Deskford, Cullen, Banffshire, Scotland.

Optics and Dispensing.—Qualified Chemist of good experience seeks post; good Prescriber. "N. B. C.," Hepkinson House, Westminster, S.W.1.

Qualified lady Assistant, 10 years' good experience (private and company) in city, suburb, provinces, seeks post; season or permanency. 169/17, Office of this Paper.

Qualified lady, free August 23, open for further Locums; also permanency; London or Manchester preferred, not essential; experienced Retail and Hospital; excellent references. 168/38, Office of this Paper.

Qualified; elderly; Locum or part time; Counter, N.H.I., Photographic; references. "H.," 18 Westmorland Road, Bayswater, W.2.

Qualified, 30, married, as Manager or Assistant in London; good experience, West End and suburbs; present position six years; free end of July. Reid, 16 Alderman's Hill, Palmers Green, London, N.15.

Qualified Manager, 38, single, disengaged, desires post; London and country experience. "M.P.S.," 70 Grangehill Road, Eltham, S.E.9.

Qualified lady (23) desires post in London; Doctor or Chemist. "H. E. D.," 1 Hopfield Avenue, Brondesbury Park, N.W.6.

Qualified lady, young, desires post in London; Locum or permanency; excellent experience; capable of taking charge; references; interview; free. 172/19, Office of this Paper.

Scot, 23, qualified, experienced, excellent references, at present on South Coast and studying for F.S.M.C., desires post with Chemist-Optician; would accept low salary in return for optical experience; Southern Counties within easy reach of London preferred. Reply 169/27, Office of this Paper.

Sheffield District.—Qualified; 26; married; smart; tall; Manager or Assistant; excellent Counter and Dispensing experience; free one month. 172/34, Office of this Paper.

Unqualified, 20, tall, all-round experience, Counter, Dispensing, Window-dressing, desires situation. Further references, Thomas, "Brithdir," Cefneithin, Llanelly.

Unqualified; first-class Dispensing experience; good references, City and West End; disengaged. C. Hunter, 7 Redburn Street, S.W.3.

Week's Locum; Dispensing, Retail, July 11 to 18 or 19 to 26; qualified. "Chemist," 100a Bellenden Road, S.E.15.

Young lady; Hall certificate; excellent references; Locum or permanency. "Y.," 1 Westow Hill, Upper Norwood, S.E.19.

Young man desires position as Assistant for July and August; 7 years' experience. Ernest Weatherley, 26 Branksome Road, Brixton, S.W.2.

Young lady; age 23; good Dispenser; 6 years' Retail experience; Part I; disengaged owing to staff reduction; highest references; Doctor or Retail. Northam, 160 Elborough Street, Southfields, S.W.18.

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